The Fernandez Ranch Public Access and Creek Restoration Project

Initial Study and Mitigated Negative Declaration

June 2, 2008

Contra Costa County
Department of Conservation & Development
County Administration Bldg., 4th Floor North Wing
651 Pine Street
Martinez, CA 94553

Prepared in conformance with the
California Environmental Quality Act (CEQA)

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1.0 Summary

Project title: The Fernandez Ranch Public Access and Creek Restoration Project.

Lead agency name and address:
Contra Costa County
Community Development Division, Department of Conservation & Development
County Administration Bldg., 4th Floor North Wing
651 Pine Street
Martinez, CA 94553

Contact person and phone number: Patrick Roche, Principal Planner, (925) 335-1242

Project location: The property is located in the northwestern portion of Contra Costa County between Highway 4 to the north and Alhambra Valley Road to the south along Christie Road, upstream of the Franklin Canyon Golf Course, along Rodeo Creek. It lies just outside and east of the city limits of Hercules (Figure 1). The site is located in Township 2 North., Range 3 West, Sections 25 and 26, Mount Diablo meridian. Access to the site is off eastbound Highway 4 just past the entry to the golf course onto Christie Road, thence 0.7 miles south on Christie Road to an unimproved drive apron.

Project sponsor's name and address:
Muir Heritage Land Trust (MHLT)
P. O. Box 2452
Martinez, CA 94553
Contact: Beth Pardieck, Stewardship Manager

General plan designation: AL – Agricultural Land

Zoning: A-4 – Agricultural Preserve District

Surrounding land uses and setting: The property is generally bordered by private ranch lands on all sides. In addition, East Bay Municipal Utility District watershed lands are to the immediate west; open space lands within the City of Hercules are to the immediate northwest; a PG&E power substation is to the immediate north; Rodeo Creek, Christie Road, and the Burlington Northern Railroad line are to the north and the east. The railroad property and tracks run parallel to Christie Road and, along with Rodeo Creek, forms the northeastern property edge.

Purpose and Use of this Initial Study: This Initial Study has been prepared to evaluate the potential environmental effects of the proposed project and to identify mitigation measures to reduce potentially significant impacts to a less-than-significant level. This Initial Study will support decisions made by approval and permitting agencies in accordance with the California

Environmental Quality Act (CEQA), including the California Public Resources Code section 21000 et seq and the California Code of Regulations section 15000 et seq. The mitigation measures identified in this document would become conditions attached to the project, agreed to by the project sponsor, that support the adoption of a Negative Declaration. This Initial Study will be made available for public review for at least 30 days prior to adoption of the Negative Declaration, and all comments on the document will be considered by the Lead Agency as part of that action. All Responsible and Trustee Agencies will then rely on the adopted Negative Declaration when reviewing the project for subsequent permits or other approvals.

Other public agencies whose approval is required and types of approval needed (e.g., permits, financing approval, or participation agreement):

- **Contra Costa County:**
  - Building Permit (Building Inspection Division, Department of Conservation & Development)
  - Drainage Permit (Public Works Department)
  - Encroachment Permit (Public Works Department)
  - Environmental Health Permit (if EBRPD portable toilets are to be provided)
  - Floodplain Encroachment Permit Ordinance 1010 (Public Works Department)
  - Grading Permit (Building Inspection Division, Department of Conservation & Development)
  - Land Use Permit (Community Development Division, Department of Conservation & Development)
  - Stormwater Pollution Protection Plan (Building Inspection Division, Department of Conservation & Development)
  - Stormwater Control Plan (if necessary, Public Works Department)
  - Tree Permit (Community Development Division, Department of Conservation & Development)
  - Williamson Act contract amendment (Community Development Division, Department of Conservation & Development)

- U.S. Army Corps of Engineers
  - 404 Permit

- United States Fish and Wildlife Service
  - Incidental take permit

- Regional Water Quality Control Board –San Francisco Bay Region
  - 404 Water Quality Certification

- California Department of Fish and Game
  - 1602 Stream Alteration Agreement

Other agencies and parties that may rely on this Initial Study:

- East Bay Regional Park District
- East Bay Municipal Utility District
- California Coastal Conservancy
- Rodeo-Hercules Fire Protection District
- Bay Area Ridge Trail Council

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist in Section 3.0 of this report.

☐ Aesthetics	■ Agriculture Resources	■ Air Quality
■ Biological Resources	■ Cultural Resources	■ Geology /Soils
■ Hazards & Hazardous Materials	■ Hydrology / Water Quality	■ Land Use / Planning
☐ Mineral Resources	☐ Noise	☐ Population / Housing
■ Public Services	■ Recreation	■ Transportation/Traffic
☐ Utilities / Service Systems	■ Mandatory Findings of Significance	

SUMMARY OF MITIGATION MEASURES:

The following mitigation measures have been identified in this Initial Study / Mitigated Negative Declaration to address the potentially significant impacts listed above. With the incorporation of these measures as part of the project, all impacts would be reduced to a level of less-than-significant.

<u>Mitigation Measure AG-1</u>: The project sponsor shall obtain a land use permit or other approval, if required to conform to the County Zoning Ordinance.

Mitigation Measure AG-2: The project sponsor shall obtain an amendment to the Williamson Act contract from Contra Costa County, in consultation with the State Department of Conservation to allow public access, if required to maintain consistency with County policy and procedures and State law.

Mitigation Measure AIR-1: Best management practices (BMPs) for dust control shall be implemented for any work involving the disturbance of soil and placement of soil and/or rock:

- **Water all active construction areas at least as needed to control dust. Use of reclaimed water is preferred.**
- **Cover all trucks hauling soil, sand, and other loose material or require all trucks to maintain at least 2 feet of freeboard (freeboard is the space between the top of the load and the top edge of the truck bed).**
- **Apply water two to three times daily or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites as needed to control dust.**
- **Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites.**
- **Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.**
- **Hydro seed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for 15 days or more).**
- **Cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.).**
- **Limit traffic speeds on unpaved roads to 15 mph.**
- **Install sandbags or other erosion control measures to prevent silt runoff to public roadways and sensitive habitat.**
- **Limit areas subject to disturbance by construction activity at any one time.**
- **Suspend construction activity when excessive wind speeds would generate visible uncontrolled dust emission from the site.**
- **Avoid idling vehicles and equipment.**
- **Replant vegetation in disturbed areas as quickly as possible.**

The following optional measure identified by the BAAQMD would also be implemented if deemed necessary:

- **Install wheel washers for all exiting trucks, or wash off the tires or tracks of all trucks and equipment leaving the site.**

Mitigation Measure BIO-1: Trails will be located away from candidate, sensitive and special status species habitat where feasible. Specifically, habitat for the Alameda whipsnake and California red-legged frog will be avoided.

Mitigation Measure BIO-2: Sensitive plant and wildlife habitat shall be identified and fenced to avoid encroachment during construction. Pre-construction surveys will be conducted by a qualified biologist prior to identify sensitive habitats. Sensitive areas will be identified as Environmentally Sensitive Areas (ESA's) and all construction activities will

be prohibited in the ESA. Contractor training will be implemented such that all construction personnel working in the vicinity of the restoration area shall be informed the sensitive habitat locations and avoidance and minimization measures.

Mitigation Measure BIO-3: Within, or adjacent to, sensitive habitats, construction will occur between July 15 and October 15 to avoid erosion and saturated soils, potential high water flow events, and special species nesting and habitat. Only re-vegetation work will be conducted after October 15 to utilize fall rains to increase plant survival. This re-vegetation will all be done by hand and will not compromise the erosion control strategies implemented prior to October 15th and will not involve site grading.

Mitigation Measure BIO-4: Trails at wetlands shall be raised by installing drainage lenses or boardwalks to allow water to flow to the seasonal wetlands. The design of these trail sections will allow continued water flow past trails without requiring ongoing maintenance. Construction of trails shall occur during the dry season.

Mitigation Measure BIO-5: Section 404 of the CWA requires that projects avoid or minimize adverse effects on jurisdictional waters to the extent practicable. To the extent feasible, the final project design shall minimize effects on wetlands and other waters in accordance with Section 404 of the Clean Water Act. Areas that are avoided shall be subject to Best Management Practices (BMPs). Such measures shall include installation of silt fencing, straw wattles or other appropriate erosion and sediment control methods or devices during construction.

Mitigation Measure BIO-6: The project shall avoid any staging of construction-related materials in delineated wetland areas or other sensitive habitat.

Mitigation Measure BIO-7: The project applicant shall provide compensatory mitigation for temporary impacts to, and permanent loss of, waters of the U.S., including wetlands, as required by the regulatory agencies. Measures shall include on-site mitigation through wetland creation or enhancement. Restoration of seasonal wetlands disturbed by trail construction and/or Staging Area (0.092 acres) shall occur as soon as feasible after construction.

Mitigation Measure BIO-8: Create at a minimum of 2:1 restoration of seasonal wetland habitat to mitigate for the loss of the seasonal wetland due to the Staging Area improvements.

Mitigation Measure BIO-9: The project shall enhance and /or restore at least 2:1 acres of riparian habitat to mitigate for the loss of the 0.35 acres of riparian habitat due to the grading and bank stabilization along Rodeo Creek, Slot Creek, and the stock pond on the Fern Creek Tributary. Based on the current wetland delineation, this mitigation as proposed would restore 0.85 acres of riparian habitat.

Mitigation Measure BIO-10: While grading, dewatering in Creek Restoration Areas C and D, and stabilization work occurs along the banks of the creeks, noise-attenuated pumps, bypass piping of sufficient size to pass a minor storm event, and post-construction BMPs will be in place.

Mitigation Measure BIO-11: Monitoring and an adaptive management monitoring program will be in place for a period consistent with the permits (e.g., a minimum of five years for the monitoring and ten years for adaptive management).

Mitigation Measure BIO-12: Obtain Regulatory Permits and other Agency Approvals prior to the start of construction activities for the project. The project applicant shall obtain all required permit approvals from the Corps, the RWQCB, and all agencies with permitting responsibilities for construction activities within jurisdictional waters of other jurisdiction areas. Permit approvals and certifications shall include, but not be limited to Section 1600 Stream Alteration Agreements from the California Department of Fish and Game, Section 404/Section 10 permits from the Corps and Section 401 Water Quality Certification from the RWQCB. The project shall comply with all provisions included in the permits.

Mitigation Measure BIO-13: The project applicant shall implement standard BMPs to maintain water quality and control erosion and sedimentation during construction, as required by compliance with the General National Pollution Discharge Elimination System (NPDES) Permit for Construction Activities to address impacts on water quality. Mitigation measures will include, but would not be limited to, installing silt fencing along the edges of the construction sites to protect wetland and isolating construction work areas from the jurisdictional wetlands.

Mitigation Measure BIO-14: Replanting of native trees and vegetation will occur as soon as possible after construction is complete.

Mitigation Measure BIO-15: An appropriate grazing management plan is being prepared which will include grazing practices designed to maintain or improve wetland vegetation, riparian vegetation, and habitat for sensitive species on the site.

Mitigation Measure CUL-1: Pursuant to CEQA Guidelines 15064.5 (f), "provisions for historical or unique archaeological resources accidentally discovered during construction" should be instituted. If unanticipated archeological resources are encountered during the trail construction, all earthmoving activity within 50 feet of the area of impact will cease until the project sponsor retains the services of a qualified archaeological consultant. The qualified archeological consultant shall examine the findings, assess their significance, and offer proposals for any procedures deemed appropriate to avoid and/or mitigate adverse impacts to those cultural resources, which have been encountered. If any significant cultural materials are recovered they shall be subject to scientific analysis, professional museum curation, and a report prepared by the qualified archaeologist according to current professional standards.

Mitigation Measure CUL-2: Prior to the start of work, site supervisors and construction workers would receive a focused training at the job site to assist them in identifying archeological resource if encountered. This awareness training would be performed by a qualified archeological consultant.

Mitigation Measure CUL-3: If a paleontological resource is encountered during the construction, all earthmoving activity within the 50 feet of the area of impact will cease until the project sponsor retains the services of a qualified archaeological consultant. The findings shall be examined to assess their significance and offer proposals for any procedures deemed appropriate to further investigate and/or mitigate adverse impacts to those paleontological resources.

Mitigation Measure CUL-4: If previously unknown human remains are encountered during construction, a Native American Tribal representative and the County Coroner shall be informed and consulted as required by State law.

Mitigation Measure GEO-1: Grazing practices shall be implemented to minimize and potentially reduce the impacts from grazing to the site's soils and slope stability.

Mitigation Measure GEO-2: Construction shall occur during the dry season. Placement of erosion control fabric and replanting shall occur immediately after construction to minimize erosion. Seeding shall be placed under the erosion control fabric and re-vegetation planting work shall occur after the fabric is in place. (Live cuttings are installed through the fabric and container stock is planted by first cutting the fabric and then folding it back and pinning it in place.) Grading or other work in the creek channel shall occur between July 15th and October 15th. Re-vegetation outside of the channel may occur beyond the October 15th deadline. Re-vegetation of exposed soils due to trail construction shall occur as soon a feasible after construction is complete.

Mitigation Measure HAZ-1: The project sponsor shall implement a Stormwater Pollution Prevention Plan (SWPPP) including management and protective measures, as well as emergency response measures as necessary, including conducting maintenance of heavy construction vehicles off-site, providing blankets and enclosures to capture fuel spills, and providing a parking area for heavy construction vehicles that is protected from leaks into the soil of water.

Mitigation Measure HAZ-2: The project sponsor shall verify on plans and in the field the precise location of the high pressure gas line in areas that could be affected by construction activity including staging, transportation, grading and planting, and provide this information to all parties involved via plans and field markings. All work within 100 feet of the pipeline shall be closely supervised to ensure complete protection of the line at all times. The project sponsor shall coordinate on-going monitoring with the pipeline owner/operator throughout the life of the project.

Mitigation Measure HYD-1: The project sponsor shall obtain all necessary reviews and approvals from regulatory agencies prior to initiating work that could affect waters of the State or of the United States, pursuant to applicable laws, regulations and orders.

Mitigation Measure TR-1: The project sponsor shall consult with the County Public Works Department and Caltrans to prepare and implement a construction-period traffic control plan that would address any necessary advance warning signage, flag person controls, lane closures, hours of operation, and similar measures to ensure safety of motorists near the Highway 4 / Christie Road intersection.

Mitigation Measure TR-2: The project sponsor shall consult with the County Public Works Department and Caltrans to prepare and implement an operational-period traffic plan that may include advance warning signs, directional signs, and information on pamphlets, websites, and similar outlets to inform visitors of the route of access to the site and necessary safety precautions when using the Highway 4 / Christie Road intersection.

Mitigation Measure TR-3: The project sponsor shall ensure that construction-period parking is limited to on-site areas.

Mitigation Measure TR-4: The project sponsor shall coordinate with the Public Works Department to install "No Parking" signs along Christie Road, as determined necessary by the County based on actual use of the facility, to discourage use of the public roadway for visitor parking.

Mitigation Measure TR-5: The project sponsor shall inform visitors through signage, pamphlets, and similar outlets that parking is limited to the on-site staging area.

Mitigation Measure TR-6: The project sponsor shall prepare and implement an overflow plan on the site as necessary to address actual parking demand.

DETERMINATION:

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

■ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent including the incorporation of each of the project components and mitigation measures listed in this report. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Patrick Roche — Signature

5/19/2008 — Date

Patrick Roche — Printed Name

Principal Planner — Title

2.0 Project Description

2.1 Location

The Fernandez Ranch Public Access Development, Creek Restoration and Property Management Project (Project) is located in the northwestern portion of Contra Costa County between Highway 4 to the north and Alhambra Valley Road to the south along Christie Road, upstream of the Franklin Canyon Golf Course, along Rodeo Creek. It lies just outside and east of the city limits of Hercules (Figure 1, Regional Vicinity Map). The site is located in Township 2 North., Range 3 West, Sections 25 and 26, Mt. Diablo meridian (Figure 2, USGS Topographic Reference Map). Access to the site is off eastbound Highway 4 just past the entry to the golf course onto Christie Road, thence 0.7 miles south on Christie Road to an unimproved drive apron.

2.2 Site Characteristics

2.2.1 Historic Land Use

The Fernandez Ranch property consists of 702 acres of rural ranch land. The land is mostly undeveloped except for fences, a remnant corral and similar ranching features, and a concrete slab from a former home at the property. The property's historic use was as a ranch and dairy. The property was used as a ranch during the Mission era, and was part of the East Bay ranch holdings of Mission Dolores in the early 1800s. Fernandez Ranch was part of the Mexican land grant to Don Ignacio Martinez in 1823, and was used for cattle grazing throughout the 1800s. Cattle grazing continued into the 1900s, and by the 1930s, a dairy farm and homestead had been constructed at the property. By 1960, the dairy farm had ceased operation. The house was demolished in the 1970s. An archeological assessment of the site noted that the remaining ranching features were of limited historical significance and did not retain sufficient intactness, integrity or direct association with persons important to the historic development of the area to qualify for the California Register of Historical Resources. An Aermotor Windmill located off Trail A, the fire road, may have some significance and will be preserved in place as part of the project.

2.2.2 Current Land Use

The site is currently grazed, with rancher access across Rodeo Creek occurring through an adjacent upstream ranch by permission of the ranch owner. The result of grazing and other ranching activities includes terracing on slopes, tree browsing, limited open scrub/shrub and suppressed riparian vegetation. Unlimited access to riparian areas by cattle has damaged and removed riparian vegetation and contributed to bank instability and erosion. No bridge or creek crossing exists at Fernandez Ranch, making Rodeo Creek impassible to vehicles within Fernandez Ranch. An underground high-pressure gas line crosses the site, including a segment which crosses the creek channel. The project will not affect or disturb the high-pressure gas line.

2.2.3 Topography / Watersheds

The property is located in the upper portion of the watershed of Rodeo Creek, which enters San Pablo Bay in the community of Rodeo, approximately two miles southwest of the Carquinez Bridge. The headwaters of another stream, Refugio Creek, are located on an isolated western section of the property. Refugio Creek flows into San Pablo Bay, through the City of Hercules. A small portion of the southeastern corner of the property is located within the Pinole watershed (Figure 3, Project Area Hydrography and Topography).

The Fernandez Ranch is predominantly characterized by somewhat rounded hillsides and a large valley flat along the main corridor of Rodeo Creek. The valley flat is a historic stream terrace that once functioned as a floodplain terrace. The primary ridge and watershed divide between Rodeo Creek and Pinole Creek trends northwestward along the southern property boundary. Tributary channels emanating from the ridge drain northward and are steepest just below the ridge crest. They gradually flatten and reduce their gradients within their alluvial fans as they approach the Rodeo Creek terrace. The highest peak is along the southern ridge at an elevation of 960 feet. The lowest point in the site is about 210 feet along the bed of Rodeo Creek at the northern property limit. Within the property, there are two main northern tributaries that flow across the alluvial valley to Rodeo Creek. For the purposes of this report, the largest central tributary is designated Fern Creek; another tributary is designated Slot Creek.

Channel conditions in Rodeo Creek have been substantially altered by construction of the railroad and Christie Road within the valley, beginning prior to 1900. Creek crossings in the vicinity of the project site and roadside bank failures have required periodic replacement and stabilization. Streamside landslides have become more severe since the heavy rainfall of Water Year 2006. Flooding is contained within the Rodeo Creek channel.

As compared to the abundant landsliding within the inner gorges, the open hillsides on the project site have few active landslides, most being small, shallow debris slides, and soil slips in the steep uplands. The tributaries typically have shallow slumps along their inner gorges. There are also has several culverts and two stock ponds which are failing or have failed in the project area. Areas of concern within Rodeo Creek and the tributaries are identified in Figure 4, Creek Analysis.

2.2.4 Biological Resources

Habitats at the site include oak woodland, riparian, grassland, limited scrub/shrub, and freshwater wetlands (Figure 5, Plant Communities). Rodeo Creek, Refugio Creek and the larger unnamed tributaries support corridors of mixed riparian habitat, primarily riparian forest and woodland dominated by coast live oak and California bay but also including pockets of willow and mixed riparian scrub. Smaller creeks and ephemeral drainages support little or no riparian habitat but do support herbaceous seasonal wetlands. Both the creek channels and associated riparian habitats are considered 'sensitive' habitats as jurisdictional wetlands (Section 404 of the Clean Water Act), and protected stream beds (Section 1602 of the State Fish and Game Code). All of the oak woodlands on the site are afforded protection under provisions of the recently

enacted State Woodlands Preservation Act (Senate Bill 1334, Section 21083.4) and are considered to be "sensitive" plant communities.

Habitat for two species listed under both State and Federal Endangered Species Acts occurs on the site: California red-legged frogs, (*Rana aurora draytonii*) listed as Threatened under both State and Federal Acts may occur in Rodeo Creek. Adult California red-legged frogs were observed in a man-made stock pond situated adjacent to the largest tributary of Rodeo Creek and it is likely the frogs use the creeks on the site for foraging, sheltering and as movement corridors. Habitat for the Alameda whipsnake (*Masticophis lateralis euryxanthus*), a Threatened species, has been documented on adjacent properties. Suitable whipsnake habitat on the Fernandez Ranch property occurs in discrete locations on the ridgeline of the subject property.

Two special-status plant species were identified within the hillslopes including Diablo helianthella and robust monardella. Both are CNPS List 1B species (considered rare or endangered through their ranges) but have no federal or state status.

2.3 Project Characteristics

As a condition of the acquisition of the Fernandez Ranch property, the Muir Heritage Land Trust (MHLT) is required to restrict use of the property to habitat restoration, preservation, protection of natural areas, and public access. The project is designed to restore, protect, and provide these uses.

2.3.1 Public Access

Public access developments will include a staging area (Figure 6, Staging Area Plan) and 3.45 miles of new trail that will connect with EBMUD Fire Roads on the ranch's western ridge (Figure 7a, 7b, and 7c, Trail Alignment Overview / Public Access Plan). Visitors will be able to access the site from dawn to dusk, seven days per week. Actual use will vary throughout the day during the week and on weekends. Travel to the site will be limited to personal motor vehicles (automobiles and small trucks), as well as equestrian trailers. Larger vans or buses could be used for transportation for special events. There is no bus or bike route to the site, although it is feasible to access the site by bicycle. All access to the site is from Highway 4 eastbound onto Christie Road, and egress is limited to Highway 4 eastbound.

The staging area will serve as the central service area at the site, and will connect to the trail system via a new bridge across Rodeo Creek. The trails are part of the Bay Area Ridge Trail alignment, and a connection is made to the East Bay Municipal Utilities District's Pinole Watershed. It is anticipated that in the future the Fernandez Ranch trails will connect to the north through Crockett Hills and to the south to County Feeder Trail #1 and to nearby MHLT lands. The construction of the trails will typically avoid sensitive habitat areas as defined by the biological assessment report (Vollmar 2006). Where trails cross wetlands, footbridges and boardwalks will be installed to minimize trail impacts on sensitive habitat. Existing culverts will also be repaired and/or replaced at certain drainage crossings (Figure 8a – 8h, Areas Surveyed for Wetland Impacts).

Staging Area

Public access to the site will be conducted through a staging area designed to provide parking for 11 cars/trucks and 2 equestrian trailers. Two of the 11 car parking spaces are dedicated for handicap accessible (ADA) parking. An unimproved overflow parking area to be located north of the staging area within an open field on the site is designated for use during the dry season only. A corral and surrounding mature live oak canopy will be preserved. This staging area location was selected because it is close to Christie Road, minimizes the potential footprint of the staging area, and efficiently connects to the proposed Rodeo Creek Bridge while minimizing impacts to existing wetlands. A series of alternative staging locations were investigated and the proposed location was deemed by project proponents and consulting scientists to have the least impact on site resources.

The proposed staging area is designed as integral to the site's character, habitat areas, view sheds, and tree canopy. The surfacing of the roadways and parking areas will be gravel except for the concrete pavement required for the ADA parking and ADA route of travel to the Rodeo Creek Bridge and ADA accessible trails. Runoff from the staging area will be sheet drained to grassy swales rather than through culverts and pipes to maintain the existing site hydrology and feed adjacent wetland areas.

Construction of the staging area and the utilization of the existing entry road will impact 0.092 acre of seasonal wetlands of low habitat value. These wetlands are seasonally saturated to shallowly inundated and dominated by introduced annual grasses and thus have a relatively low habitat value (Vollmar 2006a). This impact will be mitigated according to the requirements of the Army Corps of Engineers and the U.S. Fish and Wildlife Service as part of the project's pending wetland mitigation/monitoring plan. Seasonal wetland mitigation in the staging area will be consistent with the current mitigation requirements, which at this time are 2:1 acre in-kind wetland restoration. Based on this ratio, 0.184 acre of seasonal wetland is projected to be restored in close proximity to the seasonal wetlands that will be filled for the staging area.

Seasonal wetlands restoration will be located along the alignment of the historic fire road, between the existing entry drive and Rodeo Creek. By removing the bermed topography of this earthen road and depressing the topography to specific engineered elevations these restored wetlands will create a link between existing, unaffected seasonal wetlands on either side of this road. The road berm had created an artificial hydrological barrier between these two sets of wetlands, and its removal will both increase overall wetland area and potentially enhance seasonal wetland hydrology. The mitigation will be prepared in consultation with regulating agencies and include the requisite monitoring plan and review.

Picnic areas, benches, and informational / interpretive signage will be located adjacent to the staging area. The East Bay Regional Park District, a partner on this project and future co-owner of the property, will assist with plans for management and maintenance of these facilities. A new Rodeo Creek bridge, an engineered steel, free spanning bridge (approximately180 feet in

length and 12 foot feet in width) will support emergency and maintenance vehicles up to 60,000 lbs., and link the staging area to the south meadow across Rodeo Creek. This bridge will re-establish emergency and maintenance vehicle access to the site that was lost when the Rodeo Creek culvert crossing was washed away sometime between 1980 and 1990. The bridge will be placed over an old washed out fire road that forded the creek. The bridge will lie 30-40 feet above the Rodeo Creek water level. The bridge will have a clear span and no supporting structures will be built in the streambed.

Trail Design

Approximately 3.45 miles of multi-use trails will accommodate equestrians, mountain bikers, and hikers. The trail system includes seven titled trail segments, Trails A through G, which form a meandering loop trail and spurs that cover the majority of the ranch site. Trails A-F are planned for construction and Trail G is planned for future construction if an offsite trail connection is approved. Trail design layout was based on a studied exploration of significant site features, viewpoints, and topography. Designers focused on the creation of a multi-use trails network that would best present the site to visitors, while preserving sensitive natural resources identified during the site assessment process. Extensive experience in local trail design and construction in the region, and trail design/management best practices guided the initial route selection. Wetlands were delineated within a 100 foot corridor along the trail route. Trails were then rerouted to avoid or minimize wetland impacts. Where trail routes must cross creek tributary wetlands, footbridges and boardwalks will be constructed to minimize impacts. In upland areas, scrub habitat was avoided to ensure the viability of this limited site habitat type. Finally, a trails review was conducted by geologist/geotechnical team members to ensure trails avoided sensitive or erosive soils or slide areas.

The trail system begins at the staging area off Christie Road. At the trailhead, visitors will be presented with wayfinding and interpretive signage assisting them in understanding the ranch's unique setting and sensitive ecology. Visitors will be encouraged to explore the trail system responsibly, staying on route to avoid affecting sensitive species and habitats and also to take advantage of the fact that the trails lead to the best routes and views found on the site.

Leaving the staging area, trail users will cross Rodeo Creek on the Rodeo Creek bridge to the south meadow and homestead picnic areas. From here, the ranch's loop trail system leads to the right on Trail A, a 16-foot wide former ranch and fire road, and to the left on Trail B, a 4-foot wide accessible trail with a fine aggregate surface. Trail A will follow an existing fire Road that extends 0.60 miles from the homestead picnic area to the head of the valley, and will be ADA-accessible for its first 0.20 mile. It will be improved with minimal grading within its existing 16-foot-wide alignment to provide fire, emergency vehicle, and limited ADA access. Trail B will extend south of the bridge for 0.29 mile and lie just outside of the Rodeo Creek riparian corridor. Fire access and assisted ADA accessibility will be provided to the junction of trails A, D, and E at the head of the valley. Approximately 0.5 miles of the overall trail system will be ADA accessible, and these accessible sections will link the staging area, homestead picnic sites, and south meadow.

At the valley head, at the junction of Trails A, D, and E, a wayfinding sign will inform users of the trail options. It will also highlight the loop trail opportunity that will bring users through the site and back to the staging area via Trail B. At the Trail A, D, and E junction, the extension of Trail A (old abandoned fire road) will rise directly to the EBMUD ridge road, which will also provide emergency access. Access to this road will not be restricted but it will not be encouraged. Instead visitors will directed onto the trails, with the typical 4-foot wide earthen surface, that lead to the upper areas of the property. At the access point to EBMUD property, at the end of Trails A and D, a trail gate will be installed according to EBMUD specifications.

Trail D will ascend to the EBMUD property line on the western ridge and afford open views of the Refugio Creek watershed and the northern Bay Area. Trail E will lead to an old, failed stock pond. The stock pond berm and failing culvert will be removed and the channel through the pond will be restored. A footbridge will span the restored channel and ascend through woodlands to the open ridge grasslands. At the high point of Trail E, a viewpoint will be provided to the north, west, and east and takes in San Pablo Bay, Mount Tamalpais and the adjacent ridgelines.

Shortly beyond the Trail E viewpoint, this trail will reach the junction with Trails C and F. At this junction, Trail F will head south towards the optional Trail G; Trail C will continue the ranch's trail loop. Trail C will contour through woodland to reach open grasslands above Slot Creek and the south meadow. Trail C will then descend to Slot Creek and cross it on a footbridge to reach the south meadow. Here Trail C joins Trail B, the site's main accessible route of travel, and the way back to the staging area.

From its southern end, Trail B will follow the edge of the Rodeo Creek riparian oak woodland back to the homestead and staging areas. Along the way the trail will access two trailside picnic areas, and a footbridge and series of boardwalk sections crossing a swale and two seasonal wetlands. Trail B will serve as both part of the loop trail system and an out and back ADA trail.

The site's multi-use trails are designed, and will be built and managed, to both reduce potential conflicts between user groups and between users and sensitive resources. Equestrian, bicycle, and walking trail users will be informed by signage the importance of adhering to trail courtesy rules. Speed limits will be posted for bicyclists as well as warnings for potential conflict areas. Trails are designed to limit speed of bicyclists in an effort to reduce speed related conflicts. Trails are designed with clear sight distances, passing areas, and appropriate slopes to enhance multi-use trail use.

To preserve and protect sensitive resources and reduce off-trail use, the trails have been routed to the site's most dramatic and desired locations, features, and views, while avoiding sensitive resources such as riparian areas, scrub-shrub habitat, erodible slopes, wetlands, and rare plant habitat. Where trails cross riparian areas footbridges will be installed, and at wetlands either boardwalks or footbridges will be installed to avoid impact to sensitive areas.

The trails system is designed to minimize long-term impact on wetlands. A raised boardwalk will be used along Trail B to avoid impact to the hydrology of existing wetlands. Trail A will follow an existing fire Road that crosses a seasonal wetland of low value. The alignment of Trail A will not be altered in this area; however, wet season access along this trail will be restricted to protect wetland resources.

Measures to improve drainage along trails and stormwater flow include using drain dips and drainage lenses. Drainage dips are formed by depressing trail surface grading to allow for over-trail water flow; a drainage lens is a permeable gravel trail subgrade that allow for free draining of surface waters and maintenance of site hydrology while reducing trail maintenance. There are no pipes or channels to fill with sediment or adversely channel runoff that might lead to soil erosion or require maintenance.

Trail widths (other than Trail A) will be limited to 4 feet to reduce grading, erosion, and tree disturbance and removal. While the trails will be designed to minimize potential tree removals, up to four oak trees between 6 and 24 inches could be removed during construction. In addition to select tree removals, low hanging small and large caliper tree branches will be pruned to allow safe passage to pedestrian, bicycle, and equestrian trail users.

All tree removals will be mitigated in accordance with the requirements of the Contra Costa County tree ordinance (Ords. 94-59, 94-22). Trees larger than 20-inch circumference within 50 feet of the trail will be identified. Twenty-two native trees and over a hundred native shrubs will be planted at the staging area to provide shade and habitat. In addition to staging area trees and tree replacements along the trails if required, hundreds of trees and shrubs will be planted as part of the Creek Restoration project on Rodeo Creek.

Construction of the trails will require approximately 670 cubic yards of soil to be excavated to create trail benches in areas of hilly terrain. Sensitive habitat areas are avoided in the proposed trail layout. The effects of trail construction will be mitigated by coordinating remote construction material staging areas on the existing graded surface of Trail A both at the Rodeo Creek Bridge end, and at the head of the valley at the junction of trails A, D, and E. For construction of upland and interior trails, staging areas will be sited in open, level, grassy areas to eliminate compaction of adjacent tree roots, and to improve post-construction restoration seeding of these areas. Trail surfacing will be a native earthen surface, with the exception of Trail B, which will be a fine-grained crushed aggregate to provide ADA accessibility.

Fire management of the site will be a key feature of the Property Management Plan. The site will be fire managed using a series of tools to reduce fuel loads. Grazing will be the primary tool. Additionally, trails, especially Trail A, will serve as fire breaks and access ways. Signage and stewardship programs will illustrate the importance of fire safety and inform users what to do and where to go if fire occurs on site. EBMUD's established fire management parameters will be reviewed and considered for inclusion as this Management Plan is developed.

MHLT will patrol the site on the ground for general site concerns and fire. The East Bay Regional Park District will also conduct aerial fire patrols. East Bay Municipal Utility District Rangers conduct ground patrols on the adjacent property and coordinate with fire agencies for suppression efforts.

2.3.2 Fernandez Ranch Creek Restoration

Restoration efforts at Fernandez Ranch will include Rodeo Creek and the tributaries Fern Creek and Slot Creek (Figure 9, Preferred Creek Restoration Plan). Work along Rodeo Creek and its tributaries is included to reduce the potential for further channel incision, stabilize failing creek banks, improve the quality and diversity of the native riparian corridor.

All of the restoration work will take place within the boundaries of Fernandez Ranch. At the lower reaches of Rodeo Creek within Fernandez Ranch, the channel bed appears to have reached equilibrium and further channel incision is unlikely. However, in these reaches there are numerous segments of channel banks that have failed and are contributing large quantities of sediment to the stream system. Bank erosion will continue at the locations of the bank failures until the channel achieves sufficient floodplain width at the new channel bed elevation.

The upper reach of Rodeo Creek within the Fernandez Ranch is actively adjusting and the channel bed is currently incising. Two headcuts (channel bed erosion features that migrate upstream) were identified near the upstream property boundary of the Fernandez Ranch. One is located upstream of the property line and the other is approximately 200 feet downstream of the property line. Because of the dynamic nature of these headcuts, this reach will require additional monitoring to determine the most appropriate stabilization treatment and to ensure that proposed treatments are consistent with the existing conditions at the time of project implementation.

There are approximately 2,250 linear feet of Rodeo Creek experiencing bank slumps and unstable, near vertical, creek banks ranging from 25 to 35 feet in height. These banks will continue to fail, and erode in future storm events and contribute excessive sediment discharges into the Rodeo Creek system unless restoration efforts are undertaken. Much of the near-channel riparian vegetation has been lost due to bank failures (RDG 2006).

A comprehensive channel restoration and stabilization for upper Rodeo Creek will require a watershed-wide restoration effort, spanning several private properties immediately upstream of the ranch and requiring a significant investment unavailable to the Fernandez Ranch property owners at this time. As a result, a localized strategy within Fernandez Ranch is proposed to address instability on the property. Although the channel will remain unstable upstream of the proposed areas of work, the channel stabilization treatments will improve the health of Rodeo Creek within the project site and will reduce sediment discharges downstream. The proposed restoration work within Fernandez Ranch will provide a model for upstream treatments and will not preclude future, more comprehensive restoration efforts from taking place upstream.

Proposed Channel Stabilization Measures on Rodeo Creek

Within Fernandez Ranch, the degree of bank failure and channel incision varies along Rodeo Creek. In general, the most erosion-prone portions of Rodeo Creek within the Fernandez Ranch property are in the upper reaches and the more stable portions are in the lowest reaches adjacent to the Franklin Canyon Golf Course. Channel reaches within the golf course itself are relatively stable and contain active floodplain areas and dense riparian buffers.

Rodeo Creek channel stabilization will consist of a variety of bank and channel bed stabilization treatments within the 2,800-foot corridor of Rodeo Creek on the Fernandez Ranch property (Figure 6). The proposed work for the ranch will not require modifications to adjacent properties. The channel treatments will reduce sediment supply to the downstream reaches by stabilizing the sediment contribution zones within the ranch and by providing additional sediment storage capacity for sediment contributed upstream. Bank stabilization measures are proposed to include the following six treatments.

1) Bank Grading: Bank grading is proposed in four areas on Rodeo Creek. Bank grading will be limited to the right bank of the creek (looking downstream) except for the area of the failed culvert crossing where both banks will be graded. Bank grading will be conducted to provide for sufficient floodplain width where feasible to prevent further channel incision and provide for stable banks at approximately 2:1 slope.

Approximately 36,000 cubic yards of soils will be excavated from Rodeo Creek. Excavated soils will be temporarily stockpiled on-site at the excavation locations before being off-hauled for disposal. Soils will be disposed of on-site if accessible, non-wetland or sensitive habitat locations can be identified. If no appropriate on-site locations can be identified, all excavated soils will be disposed of off-site.

Four separate areas of creek banks will be graded. The first area, Area A, begins 100 feet upstream of the golf course, and will require approximately 150 linear feet of creek bank to be graded back to varying slopes ranging from 2:1 to 3:1 horizontal to vertical. Grading will be conducted to mimic the natural bank contours found along stable reaches of the creek. This type of grading is also referred to as contour grading. If grading below the ordinary high water mark is required to achieve the necessary flood-prone width, the channel will be dewatered. Approximately 5,000 cubic yards of soil will be excavated from the bank in Area A. This area will require the removal of one Coast Live Oak, 14-inch diameter at breast height (dbh), and three California Bays ranging in sizes from 5 to 8-inch dbh. This bank is currently unstable and has active slumps throughout.

Area B will address approximately 350 linear feet of creek bank. Bank grading at this location will also be conducted with varying slopes to mimic natural bank contours. If grading below the ordinary high water mark is required to achieve the necessary flood-prone width, the channel will be dewatered. Existing drainage swales will be regraded into the banks to maintain existing drainage patterns from the valley flat above the creek without causing gullying. One California

Buckeye, 8-inch dbh, one Willow, 12-inch dbh, three Coast Live Oaks, two 5 to 6-inch dbh and one 28-inch dbh will be removed from this location. Approximately 13,000 cubic yards of soil will be excavated from this section.

Area C will address approximately 550 linear feet of creek bank at the location of the former culvert crossing. Grading work will include the removal of five 72-inch diameter reinforced concrete culvert segments that were washed out many years ago and are currently embedded in the channel. Contour grading will also be conducted in this section and approximately 18,000 cubic yards of soil will be excavated. One Valley Oak, 18-inch dbh, will be removed as a result of the grading.

Area D represents the dynamic upper reach of the creek where channel adjustments are continuing and are influenced by conditions on upstream properties. Work in this area will address the proposed bridge location and approximately 250 linear feet of creek bank upstream of this location. Boulders of varying size will be placed below the active headcut. Additional rock will be placed above the headcut to provide the channel with additional bed materials to establish a stable channel bed elevation change. In addition, one outside bend, approximately 50 linear feet in length, will receive boulder and soil bioengineering treatments at the toe of the bank. Additional boulder and soil bioengineering treatments may line the toe of both banks directly under the proposed bridge. This would bring the maximum total linear feet of Rodeo Creek with boulder protection in Area D to approximately 300 linear feet. Bank grading will be limited in this area. Two California Bays, 10-inch dbh, and one Valley Oak, 19-inch dbh, are currently threatened by failing banks, and may be removed as a result of the bank treatments. An additional seven Coast Live Oaks ranging in size from 5 to 32-inches may also be removed to provide more stable slopes for the creek at its current bed elevation. As much as 20 tons of rock may be placed in the incising bed of Rodeo Creek.

The channel will be dewatered at any location where work will occur within the channel bed to allow for temporary access by construction equipment.

2) Boulder Placement: At the Rodeo Creek bridge crossing, riffle starters constructed of ½- to 2-ton boulders may be placed into the bed and lower banks to reduce the potential for further channel incision and bank scour. These rock features will not be mortared and will be placed at-grade in the bed of the channel. The banks at these locations will receive additional soil bioengineering treatments such as native willow staking. Boulders may also be placed at the toe of some banks to reduce the potential for scour and the destabilization of the bank. Bank toe boulders will be ½ to ¼ ton and will be keyed into the channel bed.

3) Re-vegetation: The re-vegetation of Rodeo Creek and its tributaries will be conducted in three ways: soil bioengineering, seeding, and container planting. Eight hundred linear feet of Rodeo Creek not receiving bank stabilization treatments will receive combinations of these revegetation treatments along the toe of creek bank. Soil bioengineering treatments will include the use of live willow cuttings in high sunlight conditions and live dogwood cuttings for shade conditions. Soil bioengineering methods use natural materials to perform soil and stream stabilization tasks,

where more traditional rock and riprap techniques were used in the past. Soil bioengineering relies on live vegetation to bind the soil with roots and to increase the boundary layer between moving water and channel banks with above ground vegetation. The fast growing nature of willow, coupled with the plants' extensive fine grained root system make it an ideal plant for soil bioengineering. There are many willow-based structures used for bioengineering including fascines, brush layering, and poles. Fascines are live willow bundles approximately 12 inches in diameter and placed horizontally on channel banks to prevent surface erosion and gulling. Live poles are willow cuttings that typically exceed 3 inches in diameter and are between 2 and 4 feet in length. More than 75% of the pole cutting is placed below grade to provide bank structure and prevent the cutting from drying out. Brush layering is a system for fill slopes, which is effective in strengthening stream banks by layering willow and soil in lifts. Poles and fascines may be incorporated into the brush layering system.

All areas affected by bank grading will be re-vegetated with native plant species using soil bioengineering, seeding, and deep root container methods. Seeds from local native riparian species will be collected and raked into the soils prior to the placement of the erosion control fabrics.

Hydroseeding may also be used to disburse native seeds. Planting will be conducted with minimal soils disturbance. The narrow containers of deep rooted stock require minimal digging and the existing vegetated creek banks will not be disturbed in the re-vegetation process. In addition access will be limited to the areas of disturbed and bare soil areas only. Where appropriate and where access is feasible, supplemental watering may be conducted from water trucks during the first two summers following the re-vegetation installation.

4) Erosion Control Fabric: 100% biodegradable erosion control fabric may be used where necessary to stabilize creek banks. Erosion control fabric will include coir (sterile coconut fiber) blankets and/or jute netting. Erosion control fabric will be anchored with biodegradable stakes and may be combined with bioengineering systems. Typical bank erosion control treatment may include the use of coir at the channel toe, with seeding on the upper slope.

5) Livestock Exclusion: The entire length of Rodeo Creek will be fenced with fencing meeting or exceeding the standards of a legal livestock exclusion fence. Exclusion will protect the re-vegetation areas and support an increase in plant cover within the riparian corridor. Fencing will be designed to exclude cattle while allowing safe passage for wildlife.

6) Refuse Removal: Approximately 15,000 sq ft of creek bank will be cleared of refuse. The refuse is primarily composed of remnants from the ranching activity and includes tires, wood, ceramics and scrap metal (Fugro West, 2004 and Archeo-Tec Report, 2006). Banks disturbed during the removal of the refuse will be re-vegetated with native species using the methods described above.

Restoration of the Failing Stock Pond on the Fern Creek Tributary

Fern Creek is the largest tributary to Rodeo Creek within the Fernandez Ranch. Fern Creek contains a failing stock pond at the location where Trail E crosses the channel at the head of the valley. At this location a failing culvert will be removed and channel banks and riparian vegetation will be restored. Cut and fill will be balanced at the site and staging will occur within the existing area of disturbance. Willow pole cutting and 100% biodegradable erosion control fabric will be used to stabilize the graded banks. This work will be conducted in conjunction with the trail construction. The culvert will be removed from the site and disposed of in an appropriate off-site location.

Stabilization of the Fire Road Culvert Crossing

Downstream of the stock pond on Fern Creek is an existing culvert that will be cleared of debris that is currently clogging the culvert opening. In addition, the headwalls of the culvert will be improved with approximately two tons of rock revetment. The revetment will be joint planted with willow pole staking to stabilize the adjacent banks and limit the likelihood of bank scour or culvert failure.

A 12 to 14-foot headcut exists between the confluence of Fern Creek with Rodeo Creek and the Fire Road Culvert. This headcut is a derivative of the series of headcuts that have moved up Rodeo Creek on Fernandez Ranch property and are currently found at the upper property line of the ranch. The headcut on Fern Creek is currently 700 feet downstream of the Fire Road Culvert and will continue to move up the tributary and eventually cross the Fire Road Culvert, causing it to fail. To arrest this upstream migration, rock of varying sizes (½ ton to 60 lbs.) will be placed upstream and downstream of the headcut to stabilize the channel bed. As much as 30 tons of rock may be placed in the incising bed of Fern Creek. The alternative to rock placement was evaluated and found that grading the channel banks to stabilize slopes would require the loss of numerous mature oak trees and is cost prohibitive.

Restoration of Slot Creek Tributary

Slot Creek is a minor tributary that enters Rodeo Creek on the southeastern corner of the Fernandez Ranch property. Slot Creek is severely incised at the confluence with Rodeo Creek due to the lowering of the bed elevation of Rodeo Creek. Several headcuts are present within the lower reaches of this tributary. The channel incision has created a nearly thirty foot drop in bed elevation and contains nearly vertical walls and is as narrow as 6 to 8 feet in some locations. Rock of varying sizes (½ ton to 60 lbs.) will be placed upstream and downstream of the headcuts to stabilize the channel bed. As much as 25 tons of rock may be placed in the incising bed of Slot Creek. For this tributary as well, the alternative to rock placement was evaluated and found that grading the channel banks to stabilize slopes would also require the loss of numerous mature oak trees and is cost prohibitive. This area will be fenced and warning signs posted to warn the public of the potential hazard.

Approximately three hundred feet upstream of the confluence with Rodeo Creek a failed fire Road culvert will be removed and the channel bed, banks, and riparian vegetation restored.

Three to four grade control structures composed of ¼-ton to ½ -ton boulders will be used in tandem with willow pole staking and other soil bioengineering techniques to stabilize and revegetate this 150 foot section of Fern Creek. Approximately 18 tons of rock will be placed at this reach. The buried culvert will be removed and disposed off site.

Wetlands

Grading and bank stabilization work is designed to occur above the ordinary high water mark in an effort to avoid impact to potential wetlands. However, for the purpose of this Initial Study, it was assumed that work below the ordinary high water mark would be required. The maximum estimated area would be 0.35 acres of low value wetlands within Rodeo Creek. The restoration work will create 0.85 acres of new like-kind wetlands within the channel as increased floodplain. In addition to the wetland creation, soil bioengineering will occur throughout the 2,800 linear feet of Rodeo Creek to help stabilize bank slopes and improve the riparian vegetation. This work will enhance approximately 0.30 acre of existing wetlands below the ordinary high water mark.

Construction Activities

Bank stabilization treatments will be conducted using a combination of excavators and loaders. Excavated soils will be trucked from the site through the existing Fernandez Ranch road entrance on Christie Road. A temporary construction access route will be established along the top of the right bank, outside of the riparian corridor.

No road surfacing will be placed on the construction access route and any soil disturbances will be scarified 2-3 inches and reseeded. Additional construction access will be along 700 feet of the creek channel between the location of the existing culverts and the proposed bridge location.

Staging for excavated soils and import rock will be conducted adjacent to the dirt and grass surface of the existing corral and will not be located on any sensitive habitat. Approximately 90 tons of rock will be imported to the site via the Christie Road entrance during the construction period. All proposed earthwork would span 3 months from mid-summer to early October.

All construction activities within, or adjacent to, sensitive habitats that require the use of heavy equipment or the disturbance of soils will be conducted between July 15 and October 15. Dewatering for the creek will be conducted at any location where in-channel work is done, and will include a noise-attenuated pump and bypass piping of sufficient size to pass a minor storm event.

For bank treatments conducted above ordinary high water, debris and silt fencing will be constructed along the limits of work (if channel dewatering is not required) to prevent discharges into the creek channel. Construction activities will be conducted during standard construction hours permitted by the County. The temporary construction access route will be restored at the completion of construction activities and re-seeded with native grasses. Construction, including restoration seeding of bare areas, will occur between June and October 15th for the creek, staging area, and trails work. Additional re-vegetation work will be conducted after October 15 to utilize

fall rains to increase plant survival. This re-vegetation will all be done by hand and may involve planting oak seedlings, increasing densities of willow poles near the active channel and seeps on the upper banks, and select deep-root container stock. This work will not compromise the erosion control strategies implemented prior to October 15th and does not involve site grading.

The restoration of Rodeo Creek will involve approximately 2.2 acres of riparian plantings. This area will be graded and stabilized primarily with vegetation through soil bioengineering methods using native riparian species, including hundreds of oaks, buckeyes, and willows.

Maintenance and Monitoring

A post-construction maintenance and monitoring program for the creek restoration project will be conducted for 5 years to assess channel conditions, and 10 years to assess re-vegetation conditions. Successes, failures, and assessment data gleaned from monitoring the initial restoration will be documented and evaluated and inform an Adaptive Management approach to post-construction maintenance and future restoration efforts on Rodeo Creek and its tributaries. Adaptive Management, while founded on the creek's initial assessment, takes full advantage of new information by evaluating and adopting new information regarding the changing influences on the creek and restoration. An adaptive management approach creates a feedback loop between the evolving riparian conditions, management goals, and maintenance and restoration efforts to ensure that maintenance and restoration work responds to changing conditions on the site.

2.3.3 Fernandez Ranch Property Management Plan (Operations and Maintenance)

The Fernandez Ranch Property Management Plan (FRPMP) is being created to guide habitat preservation, restoration, and public access objectives for the Fernandez Ranch property. This plan will be the operating plan for site activities after the project construction is complete.

The Muir Heritage Land Trust will manage all operations of the ranch. The ranch will be open daily from dusk to dawn for public access. Public usage of the property is estimated to be up to 50 people per day on weekends and 20 people per day on weekdays. Vehicle trips associated with public access to the property is estimated to be up to 25 vehicles per day on weekends and 10 vehicles per day on weekdays.

Maintenance operations related to public access will include trail, fire road, and site features maintenance. Garbage collection will be provided by outside vendors. Chemicals may be used on-site as part of maintenance activities, and will be handled in accordance with all applicable hazardous materials regulations. There will be no utilities at the site and no water source beyond water for stock.

There will also be operations related to grazing, on-going restoration projects, and resource preservation. On-going restoration projects may include additional native plantings as well as habitat enhancement measures such as possible reintroduction of the California ground squirrel

(subject to approval by the Department of Fish and Game) to enhance the prey base for special-status raptors and to restore aestivation and overwintering habitat for the California red-legged frog and other species. Grazing consultants for the project have determined that grazing operations are the only feasible method of invasive plant control available for the greater ranch property, although other manual and chemical methods will be considered on a case-by-case basis. Grazing is also seen as integral to the ranch's fire management plan as a tool for reducing fire fuel loads. In the short term, grazing operations for the Fernandez Ranch will remain at the current levels as established by the lessee. Grazing levels may be changed after the future detailed evaluation of grazing practices is completed. Proposed changes to the current lessee's methods may include completing perimeter fencing, stock pond fencing, livestock handling fencing, and exclusionary fencing for public access picnic and staging areas. Grazing practices will be established that are consistent with restoration and preservation of sensitive habitats and species. Rotation of grazing units will be managed to enhance habitat for sensitive species (Ford 2006).

Vehicular access will be required by the ranching lessee for grazing operations. Ranching vehicles will traverse the site on Trail A, the fire road and on other site trails when and if appropriate and sustainable. ATV vehicles will traverse open areas in the dry season only. Ranching operations, including vehicle access, will be managed in part to prevent degradation and erosion of vegetation and soils. Restoration efforts may require vehicular access to the site across the Rodeo Creek bridge to accommodate scientists, engineers, and contractors.

Site operations and maintenance activities are not expected to generate significant increase in vehicle trips on Christie Road. Vehicle trips associated with maintenance, restoration, and grazing activities will be consistent with those associated with adjacent ranching and equestrian facilities.

3.0 EVALUATION OF ENVIRONMENTAL IMPACTS

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration (Section 15063(c)(3)(D)). In this case, a brief discussion should identify the following:
   a) Earlier Analysis Used. Identify and state where they are available for review.
   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures, which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:
   a) The significance criteria or threshold, if any, used to evaluate each question; and
   b) The mitigation measure identified, if any, to reduce the impact to less than significance

Environmental Checklist

An explanation of each checklist item is presented in Section 4.0 of this report.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS - Would the project:				
a) Have a substantial adverse effect on a scenic vista?			X	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?			X	
c) Substantially degrade the existing visual character or quality of the site and its surroundings?			X	
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?				X
II. AGRICULTURE RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?		X		
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?				X
III. AIR QUALITY - Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?				X
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?		X		
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?				X
d) Expose sensitive receptors to substantial pollutant concentrations?				X
e) Create objectionable odors affecting a substantial number of people?			X	
IV. BIOLOGICAL RESOURCES - Would the project:				
a) Have a substantial adverse effect, either directly or through habitat		X		

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?		X		
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?		X		
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				X
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?		X		
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X
V. CULTURAL RESOURCES - Would the project:				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in PRC section15064.5?			X	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to PRC section 15064.5?		X		
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X		
d) Disturb any human remains, including those interred outside of formal cemeteries?		X		
VI. GEOLOGY AND SOILS - Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			X	
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?		X		
b) Result in substantial soil erosion or the loss of topsoil?		X		

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?		X		
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?				X
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X
VII. HAZARDS AND HAZARDOUS MATERIALS - Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				X
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?		X		
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public				X

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
or the environment?				
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?			X	
VIII. HYDROLOGY AND WATER QUALITY - Would the project:				
a) Violate any water quality standards or waste discharge requirements?		X		
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level, which would not support existing land uses or planned uses for which permits have been granted)?				X

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?			X	
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?			X	
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			X	
f) Otherwise substantially degrade water quality?			X	
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				X
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X
j) Inundation by seiche, tsunami, or mudflow?				X

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. LAND USE AND PLANNING - Would the project:				
a) Physically divide an established community?				X
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?		X		
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				X
X. MINERAL RESOURCES - Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X
XI. NOISE – Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
b) Exposure of persons to or generation of excessive groundborne vibration or			X	

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
groundborne noise levels?				
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				X
XII. POPULATION AND HOUSING - Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. PUBLIC SERVICES				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?		X		
Police protection?				X
Schools?				X
Parks?				X
Other public facilities?				X
XIV. RECREATION				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?		X		
XV. TRANSPORTATION/TRAFFIC - Would the project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street			X	

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?				
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?			X	
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?		X		
e) Result in inadequate emergency access?				X
f) Result in inadequate parking capacity?		X		
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				X
XVI. UTILITIES AND SERVICE SYSTEMS – Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				X
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				X
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				X
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				X
g) Comply with federal, state, and local statutes and regulations related to solid waste?				X
XVII. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		X		

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?				X
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?				X

4.0 EXPLANATION OF ENVIRONMENTAL EFFECTS

4.1 AESTHETICS

a) Would the project have a substantial adverse effect on a scenic vista?

Less than Significant Impact. The project site is part of the larger open lands along Highway 4 that serve as a scenic break between the City of Hercules and City of Martinez, but is located in an isolated valley, south of Highway 4 and east of the City of Hercules. No scenic views are available from public vantage points other than Christie Road immediately adjacent to the site and distant views (approximately .75 mile) from Highway 4 through the Christie Road / Rodeo Creek valley. The westernmost ridge of the site is part of a County-designated Scenic Ridgeway (Contra Costa County General Plan 2005-2020). County policy is to restrict development on open space lands and scenic ridges, including major grading and structures, and to protect public access to scenic ridges. The project would preserve the site as publicly accessible land, preclude other development, and route trails to minimize impacts, while affording the public with additional access to particular viewpoints from the site.

b) Would the project substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Less than Significant Impact. Highway 4 is a County-designated Scenic Route, but has no State designation. The proposed project would not be within the protected highway corridor, and has been designed to avoid adverse effects on other scenic resources on the site, including the hillsides, tree cover, rock outcroppings and creek corridor. Portions of the site will be graded and a few trees will be removed to install the trails and perform the creek restoration. However, trail grading will be minimized and the creek areas will be replanted with native plants and trees as soon as practicable after construction is completed.

c) Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

Less than Significant Impact. The proposed project will include grading and construction of new pedestrian, bicycling, and horseback riding trails in areas that are visible from Highway 4 at a distance of about 0.75 mile. The project will also grade creek banks within Rodeo Creek and install culverts and footbridges at Fern Creek and Slot Creek. The project will also establish a staging area at the lower meadow along Christie Road for public access, including a parking lot, picnic benches and signage. A picnic area will also be established at the homestead site. The areas of work will be a temporary degradation of the visual character of the site. However, all of the areas have been selected based on biological and geological evaluations and will be revegetated and maintained to provide public enjoyment of the area. The parking lot will be paved in gravel and small amounts of concrete to provide handicap-accessible parking.

Landscape plantings will be located within and around the parking lot. An historic corral will also be integrated into the staging area parking lot. No substantial degradation will occur.

d) Would the project create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?

No Impact. No lighting is proposed as part of the project.

4.2 AGRICULTURAL RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland.

a) Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. The project site is mapped as grazing land by the FMMP. The project would retain the grazing use of the lands at this site in addition to the public access improvements and the creek restoration. An appropriate grazing management plan is being prepared to ensure the long-term viability of grazing at the site within the ecological constraints and objectives for the land.

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

Less than Significant Impact with Mitigation Incorporated. The site is zoned for agricultural use and will be used for grazing purposes and as open space and public access. The zoning regulation for the A-4 District does not specifically refer to trails and related public use among the permitted uses or conditionally permitted uses in this district. The General Plan allows for AL-designated land to be used for Open Space and/or Recreational uses and therefore the project is compatible with this land use designation. The site is subject to a Williamson Act contract and will maintain the agricultural usage in compliance with the Act. The Williamson Act provides that recreational and open space uses are compatible uses. If there any potential conflicts between the public access proposed as part of the project and the Williamson Act contract covering the property, an amendment to the Williamson Act contract will be obtained to allow public access and recreational use.

> **<u>Mitigation Measure AG-1</u>: The project sponsor shall obtain a land use permit or other approval, if required to conform to the County Zoning Ordinance.**

Mitigation Measure AG-2: The project sponsor shall obtain an amendment to the Williamson Act contract from Contra Costa County, in consultation with the State Department of Conservation to allow public access, if required to maintain consistency with County policy and procedures and State law.

c) Would the project involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?

No Impact. The project does not include any changes in the existing environment that would result in the conversion of farmland to non-agricultural use. The public access improvements will be limited to meadow areas and narrow trails, and would include cattle exclusion fencing along primary creek corridors to maintain and enhance the biological resources, water quality and soil stability in those areas, while facilitating the retention of the vast majority of the land for continued grazing.

4.3 AIR QUALITY

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

No Impact. The San Francisco Bay Area Air Basin is a non-attainment area for the State and federal ambient ozone and particulate matter (PM_{10}) standards. The Project would not conflict with any control measures and growth assumptions in the Bay Area 2000 Clean Air Plan. This Project would not obstruct implementation of applicable air quality plans because it does not involve development or operations sufficient to contribute substantial amounts of pollutants and would not involve land use changes or programs that would be in conflict with the assumptions included in the Plan.

b) Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less than Significant Impact with Mitigation Incorporated. There would be a minor temporary increase in emissions during construction activity at the site that would have the potential for short-term adverse effects to air quality. Fugitive dust during construction and emission from construction related vehicles would occur over a three month period. Construction related emission from fugitive dust would vary depending on the level and type of activity, soils being moved, weather conditions and other factors. Fine particulate fugitive dust would result from excavation, grading, and vehicle traffic on unpaved roads, diesel equipment exhaust, and temporarily stockpiling soil onsite. Standard Best Management Practices (BMPs) would be used to control fugitive dust.

Approximately 10 vehicle trips per weekday, and 25 vehicle trips per weekend day would occur to and from the site for recreational and operational purposes (e.g. policing the site, maintenance of recreational facilities, recreational visitors, livestock maintenance) when construction is completed. The trip generation of the proposed project would be well below the 2,000 trips per day threshold established by the Bay Area Air Quality Management district (BAAQMD) for potentially significant emissions of ROG, NOx, or PM10, nor would the project exceed any of the thresholds for carbon monoxide. Therefore, the proposed project would not exceed the BAAQMD standards, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations. However, the work will be performed in the dry season when dust may be a concern. The following mitigation measure would reduce potential impacts to a less-than-significant level.

Mitigation Measure AIR-1: Best management practices (BMPs) for dust control shall be implemented for any work involving the disturbance of soil and placement of soil and/or rock:

- **Water all active construction areas at least as needed to control dust. Use of reclaimed water is preferred.**
- **Cover all trucks hauling soil, sand, and other loose material or require all trucks to maintain at least 2 feet of freeboard (freeboard is the space between the top of the load and the top edge of the truck bed).**
- **Apply water two to three times daily or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites as needed to control dust.**
- **Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites.**
- **Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.**
- **Hydro seed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for 15 days or more).**
- **Cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.).**
- **Limit traffic speeds on unpaved roads to 15 mph.**
- **Install sandbags or other erosion control measures to prevent silt runoff to public roadways and sensitive habitat.**
- **Limit areas subject to disturbance by construction activity at any one time.**
- **Suspend construction activity when excessive wind speeds would generate visible uncontrolled dust emission from the site.**
- **Avoid idling vehicles and equipment.**
- **Replant vegetation in disturbed areas as quickly as possible.**

The following optional measure identified by the BAAQMD would also be implemented if deemed necessary:

- **Install wheel washers for all exiting trucks, or wash off the tires or tracks of all trucks and equipment leaving the site.**

c) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?

No Impact. The project would generate an estimated 5,210 annual vehicle trips for public access and maintenance/operations. For federal Clean Air Act purposes, on an annual basis the project emissions would be less than the Conformity Determination *de minimus* thresholds for non-attainment/maintenance pollutants. The BAAQMD has also set thresholds of significance for regional air pollutants. The project would not result in ozone precursors or PM_{10} above the *de minimus* level of 80 pounds per day, which is approximately equal to 2,000 trips per day.

d) Would the project expose sensitive receptors to substantial pollutant concentrations?

No Impact. The project would not generate a new substantial pollutant concentration and there are no sensitive receptors (schools, hospitals, etc.) near-by.

e) Would the project create objectionable odors affecting a substantial number of people?

Less than Significant Impact. Construction is anticipated to occur over a three month period, and would involve deliveries of materials and equipment, grading, off-haul of soils, and other general construction activity at the site to install the public access and staging area improvements and to implement the creek restoration project. Diesel powered vehicles used in these processes could create objectionable odors on a short term and temporary basis. The project is located in an isolated valley with few residential or other sensitive neighbors and any odors would be dispersed from the site and access roadway (Christie Road) over the intervening distance.

4.4 BIOLOGICAL RESOURCES

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

The project site supports suitable habitat for the California red-legged frog (CRLF) and Alameda whipsnake, two species listed under both the State and Federal Endangered Species Acts. Suitable habitat for the Alameda whipsnake will be avoided during project construction.

However, suitable habitat for the California red-legged frog would be temporarily impacted during construction. Specifically, construction within the creeks and the adjacent upland habitat will result in temporary impacts to suitable habitat for the species.

Although the proposed project will have temporary impacts to the two species referenced above, the overall project will yield long term benefits to the species. Habitat improvements and fencing the riparian areas will effectively improve the habitat over existing conditions. Fencing the riparian areas will reduce impacts to suitable CRLF habitat resulting from cattle grazing.

Several of the plant communities mapped within the hillslopes are considered 'sensitive' including the oak woodlands, a few localized native wildflower fields, and purple needlegrass (*Nassella pulchra*) and coastal prairie stands. At least three special-status wildlife species are associated with the creeks on the site. Rodeo Creek, Refugio Creek, and the larger tributaries provide foraging, sheltering, and movement habitat for the California red-legged frog and western pond turtle. Banks adjacent to shaded riparian habitats at this site are utilized by San Francisco dusky-footed woodrats for building nests (i.e., stick houses).

The northern harrier, a state species of special concern, has been observed foraging in the project area. California red-legged frogs and Alameda whipsnakes likely migrate across and may occasionally forage on the floodplain terrace. No special status plant species were found on the floodplain terrace.

All of the oak woodlands on the site are protected under provisions of the State Woodlands Preservation Act (Senate Bill 1334, Section 21083.4) and are considered to be "sensitive" plant communities. There are large stands of valley oaks on the project site along ridgelines and upper slopes, which is very unusual for the species. Valley oaks typically occur on deeper alluvial soils in valley bottoms. Oregon oak, a regionally unique species according to the local chapter of the California Native Plant Society (CNPS), occurs sporadically in association with the valley oaks along the ridgelines and upper hillslopes. The project site is near the southern and eastern range of this species within the Coast Ranges, which is why it is considered a CNPS regionally unique species. Only two blue oaks were found on the site, representing the westernmost extent of this species in the local region. California black oaks occur in low to moderate density within mixed oak/bay woodlands on the site. These sensitive habitats will not be impacted by the proposed project since the restoration is localized within creeks and along open areas that accommodate trails.

Rodeo Creek both the creek channels and associated riparian habitats are considered 'sensitive' habitats as jurisdictional wetlands (Section 404 of the Clean Water Act), protected stream beds (Section 1602 of the State Fish and Game Code), and designated sensitive habitats by CDFG. Smaller creeks and ephemeral drainages have little or no woody riparian habitat but do support herbaceous seasonal wetlands. These wetlands have been determined to be within the jurisdiction of the U.S. Army Corps of Engineers and work in these areas is subject to regulation under Section 404 of the Clean Water Act. The proposed project may disturb as much as 0.35 acres of low quality wetlands. Approximately 0.85 acres of new, high quality wetlands will be

created on site to offset impacts to wetlands associated with construction of the proposed project. Impacts to wetlands associated with construction of the Staging Area will be mitigated on site at a 2:1 replacement ratio. All wetland mitigation will be implemented in consultation and pending approval of state and federal resources agencies.

In addition, wildlife and plant species with the potential to occur in the project area may include western pond turtle, northern harrier, and dusky-footed woodrat. Avoidance and minimization measures that address these species are listed below and have been incorporated into the proposed project.

Less than Significant Impact with Mitigation Incorporated. The following Mitigation Measures would be incorporated during the construction and operation of the project to reduce the impact to any candidate, sensitive, or special status species. With the inclusion of these mitigation measures as part of the project the impact would be less than significant.

> **Mitigation Measure BIO-1: Trails will be located away from candidate, sensitive and special status species habitat where feasible. Specifically, habitat for the Alameda whipsnake and California red-legged frog will be avoided.**
>
> **Mitigation Measure BIO-2: Sensitive plant and wildlife habitat shall be identified and fenced to avoid encroachment during construction. Pre-construction surveys will be conducted by a qualified biologist prior to identify sensitive habitats. Sensitive areas will be identified as Environmentally Sensitive Areas (ESA's) and all construction activities will be prohibited in the ESA. Contractor training will be implemented such that all construction personnel working in the vicinity of the restoration area shall be informed the sensitive habitat locations and avoidance and minimization measures.**

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Less than Significant Impact with Mitigation Incorporated. The site will be protected as natural habitat and range land. The project is designed to minimize impacts to sensitive habitats. A deed restriction will enable the property to be protected as habitat in the long-term. This is a project beneficial to biological resources.

The project will entail temporary loss of riparian and seasonal wetland habitat during the construction of the stream stabilization improvements, staging area, and trails. The Rodeo Creek, Slot Creek, and the stock pond on the Fern Creek Tributary restoration and stabilization work will require alteration of the streambed and bank resulting in temporary loss of riparian habitat where it is present. Construction activities will occur between July 15 and October 15 and include bank stabilization and replanting with native species. Impacts from construction

activities will be temporary. No impacts, either temporary or permanent, are expected on downstream or upstream properties.

While several of the trails will cross seasonal wetlands and ephemeral creeks located on the property, the trail alignments have been located to avoid or minimize impacts to potential jurisdictional wetlands and other jurisdictional water bodies. Trail A starts across Rodeo Creek and leads up the Fern Creek valley on an existing ranch and fire access road. The remaining section of Trail A, located upon an existing road, passes near two seasonal wetlands. This segment of Trail A is not expected to impact the seasonal wetlands areas as the existing roadbed will either be maintained as is, or minimally improved with a layer of gravel. Trail B will cross seasonal wetlands in two locations with boardwalks. The boardwalks will minimize the impact to these wetlands and allow continued hydrological connection between the adjacent wetland areas. Trails C, D, E, F, and G are located primarily in upland forest and woodland communities. Creek crossings on these trails will be spanned by footbridges. Disturbance to these wetland areas during construction will be minimized by spanning the creeks, phasing the construction and replanting immediately after construction.

Construction of the Staging Area will require the fill of 0.092 acres of low quality seasonal wetland. The project will mitigate this wetland loss by creating new seasonal wetland. Based on the current estimate of wetland area to be filled of 0.092 acres, the project is required to create a minimum of 0.184 acres of seasonal wetland; however, the project includes the creation of 0.33 acres of seasonal wetland, providing a net gain of 0.146 acres of seasonal wetland. The location of the wetland to be created is adjacent to the filled wetland (Figure 7 – Staging Area Plan). These wetlands will be restored with appropriate native plants and a mitigation monitoring program will be in place for five years after restoration is complete. The monitoring program will include adaptive management if necessary

With the inclusion of the following mitigation measures as part of the project the impact would be less than significant.

> **Mitigation Measure BIO-3: Within, or adjacent to, sensitive habitats, construction will occur between July 15 and October 15 to avoid erosion and saturated soils, potential high water flow events, and special species nesting and habitat. Only re-vegetation work will be conducted after October 15 to utilize fall rains to increase plant survival. This re-vegetation will all be done by hand and will not compromise the erosion control strategies implemented prior to October 15th and will not involve site grading.**
>
> **Mitigation Measure BIO-4: Trails at wetlands shall be raised by installing drainage lenses or boardwalks to allow water to flow to the seasonal wetlands. The design of these trail sections will allow continued water flow past trails without requiring ongoing maintenance. Construction of trails shall occur during the dry season.**

Mitigation Measure BIO-5: Section 404 of the CWA requires that projects avoid or minimize adverse effects on jurisdictional waters to the extent practicable. To the extent feasible, the final project design shall minimize effects on wetlands and other waters in accordance with Section 404 of the Clean Water Act. Areas that are avoided shall be subject to Best Management Practices (BMPs). Such measures shall include installation of silt fencing, straw wattles or other appropriate erosion and sediment control methods or devices during construction.

Mitigation Measure BIO-6: The project shall avoid any staging of construction-related materials in delineated wetland areas or other sensitive habitat.

Mitigation Measure BIO-7: The project applicant shall provide compensatory mitigation for temporary impacts to, and permanent loss of, waters of the U.S., including wetlands, as required by the regulatory agencies. Measures shall include on-site mitigation through wetland creation or enhancement. Restoration of seasonal wetlands disturbed by trail construction and/or Staging Area (0.092 acres) shall occur as soon as feasible after construction.

Mitigation Measure BIO-8: Create at a minimum of 2:1 restoration of seasonal wetland habitat to mitigate for the loss of the seasonal wetland due to the Staging Area improvements.

Mitigation Measure BIO-9: The project shall enhance and /or restore at least 2:1 acres of riparian habitat to mitigate for the loss of the 0.35 acres of riparian habitat due to the grading and bank stabilization along Rodeo Creek, Slot Creek, and the stock pond on the Fern Creek Tributary. Based on the current wetland delineation, this mitigation as proposed would restore 0.85 acres of riparian habitat.

Mitigation Measure BIO-10: While grading, dewatering in Creek Restoration Areas C and D, and stabilization work occurs along the banks of the creeks, noise-attenuated pumps, bypass piping of sufficient size to pass a minor storm event, and post-construction BMPs will be in place.

Mitigation Measure BIO-11: Monitoring and an adaptive management monitoring program will be in place for a period consistent with the permits (e.g., a minimum of five years for the monitoring and ten years for adaptive management).

Mitigation Measure BIO-12: Obtain Regulatory Permits and other Agency Approvals prior to the start of construction activities for the project. The project applicant shall obtain all required permit approvals from the Corps, the RWQCB, and all agencies with permitting responsibilities for construction activities within jurisdictional waters of other jurisdiction areas. Permit approvals and certifications

shall include, but not be limited to Section 1600 Stream Alteration Agreements from the California Department of Fish and Game, Section 404/Section 10 permits from the Corps and Section 401 Water Quality Certification from the RWQCB. The project shall comply with all provisions included in the permits.

Mitigation Measure BIO-13: The project applicant shall implement standard BMPs to maintain water quality and control erosion and sedimentation during construction, as required by compliance with the General National Pollution Discharge Elimination System (NPDES) Permit for Construction Activities to address impacts on water quality. Mitigation measures will include, but would not be limited to, installing silt fencing along the edges of the construction sites to protect wetland and isolating construction work areas from the jurisdictional wetlands.

Mitigation Measure BIO-15: An appropriate grazing management plan is being prepared which will include grazing practices designed to maintain or improve wetland vegetation, riparian vegetation, and habitat for sensitive species on the site.

c) Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Construction of the proposed staging area and entry road will impact 0.092 acres of seasonal wetlands of low habitat value. These wetlands are seasonally saturated and dominated by introduced annual grasses resulting in a relatively low habitat value *(Vollmar 2006a)*. This impact will be mitigated by providing in-kind wetland restoration on-site. Approximately 0.184 acre of seasonal wetlands will be restored as part of the proposed project in close proximity to the seasonal wetlands that will be filled for the Staging Area.

The final mitigation plan to address these impacts will be prepared in consultation with regulatory agencies and include the requisite monitoring plan and review.

Less than Significant Impact with Mitigation Incorporated. As stated above the construction of the trail alignment and stream stabilization work will have a short-term temporary impact both the seasonal and riparian wetland areas. Construction of the staging area will result in the loss of 0.092 acres of low quality wetland.

After construction is complete, the wetland areas will be replanted to restore the wetland habitat. The trails are designed to minimize any hydrologic impediments. The stream stabilization will improve the riparian habitat by providing stable banks that will allow for the growth of native plant species and reduce erosion.

Trails, access road, and staging area will be constructed to provide access to the site. Some trail sections will be constructed in areas that are sensitive habitat including seasonal wetlands. Trails will potentially affect the course of the runoff that flows into the seasonal wetlands. The trail alignments have been located to avoid or minimize impacts to potential jurisdictional wetlands and other jurisdictional water bodies.

During the construction of Trail B, 0.01 acres of seasonal wetland area will be temporarily disturbed by construction of a boardwalk; however, the construction will occur during the dry season when there will be minimal effect. Trail A is an existing fire road and will not be improved or expanded, other than placement of gravel on portions of the surface to make the trail reasonably accessible and to accommodate ease of use by emergency vehicles. Trails D and E cross seasonal creeks and seasonal wetlands in a few limited areas (Vollmar 2006a). In two locations, boardwalks will be constructed to maintain the hydrological connection to avoid long-term impact to the seasonal wetland.

The construction of the Staging Area will fill 0.08 acres of low quality seasonal wetland. This wetland loss is proposed to be replaced on site with like kind seasonal wetland at a ratio of greater than 2:1 (Figure 7 – Staging Area Plan). The mitigated wetland area will be higher quality wetland.

The implementation of **Mitigation Measures BIO-3 through BIO-13** as stated above would reduce the potential impacts from the trail access improvements to less than significant. With the inclusion of these mitigation measures as part of the project, the potential impact would be less than significant.

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with any established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

No Impact. The biological assessment report did not find any established native resident or migratory wildlife corridors (Vollmar 2006). It is unlikely that the project would impede the use of native wildlife nursery sites. The project will not build structures with the exception of the bridge. The trails once constructed will not have any effect on wildlife movement.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less than Significant Impact with Mitigation Incorporated. Contra Costa County's tree ordinance requires the surveying and location of trees within 50-feet of a trail. This project could potentially remove up to four oak trees between 6 and 24 inches in size. To mitigate this impact, twenty-two native trees and over a hundred native shrubs will be planted at the staging area to provide shade and habitat and native trees and shrubs will be planted as part of the creek

restoration project on Rodeo Creek. Cut and graded areas along trails will be reseeded as soon as possible after construction is complete.

With the inclusion of the following measure part of the project the potential impact would be less than significant.

> **Mitigation Measure BIO-14: Replanting of native trees and vegetation will occur as soon as possible after construction is complete.**

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The proposed project would not conflict with any approved conservation plan.

4.5 CULTURAL RESOURCES

a) Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

Less than Significant Impact. A Phase I Cultural Resources Assessment prepared for the site identifies and inventories cultural resources within the project area and provides a preliminary assessment of the each cultural feature's historical significance. The Phase I Assessment concluded\s that the cultural resources recorded during the survey of the Fernandez Ranch Project are not eligible for listing on the California Register of Historical Places. According to CEQA Guidelines §15064.5, a resource shall be considered to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (CRHR). The results of this study conclude that no recorded resource meets any of the criteria for California Register of Historical Resources eligibility and/or that the resources lack integrity in design, location, feeling, materials and/or workmanship (Archeo-Tech. 2006).

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Less than Significant Impact with Mitigation Incorporated. While no prehistoric or historic period cultural resources that meet the criteria of eligibility for the CRHR, the findings may be the result of the poor survey conditions. There was extremely poor ground visibility (~10%) and the ground was very saturated at the time of the survey. Both factors greatly hinder the effectiveness of an archaeological survey. The project boundaries are situated within a zone of moderate to high potential for extant prehistoric cultural resources. This determination is based on the presence of three prehistoric sites along Rodeo Creek and its tributaries within one-half mile of the project area and the ubiquitous presence of prehistoric sites along fresh water sources in the East Bay.

Although a variety of the highly significant prehistoric sites have been recorded in a similar setting, near the confluence areas of a freshwater inlet and a tidal marsh along the eastern shore of the San Francisco Bay, the archival literature search revealed that no cultural resources of historical significance are known to exist within the project area. Furthermore, no cultural resources were located during the surface survey and no significant cultural resources were located within the thirteen shovel test pits within or adjacent to the project.

According to §15064.5, if an archaeological resource is neither a unique archaeological nor a historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment. However due to the poor survey conditions and that the project boundaries are in a zone of moderate to high potential for prehistoric resources the following mitigation measure has been incorporated into the project. With the inclusion of this mitigation measure as part of the project, the potential for a significant impact from the project would be reduced to less than significant.

> **Mitigation Measure CUL-1: Pursuant to CEQA Guidelines 15064.5 (f), "provisions for historical or unique archaeological resources accidentally discovered during construction" should be instituted. If unanticipated archeological resources are encountered during the trail construction, all earthmoving activity within 50 feet of the area of impact will cease until the project sponsor retains the services of a qualified archaeological consultant. The qualified archeological consultant shall examine the findings, assess their significance, and offer proposals for any procedures deemed appropriate to avoid and/or mitigate adverse impacts to those cultural resources, which have been encountered. If any significant cultural materials are recovered they shall be subject to scientific analysis, professional museum curation, and a report prepared by the qualified archaeologist according to current professional standards.**
>
> **Mitigation Measure CUL-2: Prior to the start of work, site supervisors and construction workers would receive a focused training at the job site to assist them in identifying archeological resource if encountered. This awareness training would be performed by a qualified archeological consultant.**

c) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than Significant Impact with Mitigation Incorporated. No unique paleontological resources or geologic features have been located at the site. If paleontological resources were discovered during construction, disturbance of the resources would be a significant impact. The following mitigation measure is incorporated into the project in the event that a paleontological resource is encountered. With the inclusion of this mitigation measure as part of the project, the potential for a significant impact from the project would be reduced to less than significant.

Mitigation Measure CUL-3: If a paleontological resource is encountered during the construction, all earthmoving activity within the 50 feet of the area of impact will cease until the project sponsor retains the services of a qualified archaeological consultant. The findings shall be examined to assess their significance and offer proposals for any procedures deemed appropriate to further investigate and/or mitigate adverse impacts to those paleontological resources.

d) Would the project disturb any human remains, including those interred outside of formal cemeteries?

Less than Significant Impact with Mitigation Incorporated. No human remains have been determined to be located at the site. If remains were discovered during construction, disturbance of the remains would be a significant impact. The following mitigation measure is incorporated into the project in the event that human remains are encountered. With the inclusion of this mitigation measure, the potential for a significant impact from the project would be reduced to less than significant.

Mitigation Measure CUL-4: If previously unknown human remains are encountered during construction, a Native American Tribal representative and the County Coroner shall be informed and consulted as required by State law.

4.6 GEOLOGY AND SOILS

a) Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Less than Significant Impact. The site is located 6 miles to the southwest of the Hayward fault and 8 miles to the northeast of the Concord-Green Valley fault. The site would not be affected by a rupture at this distance and the impact is less that significant.

ii) Strong seismic ground shaking?

Less than Significant Impact. The project would be subject to ground shaking from the Hayward and Concord-Green Valley faults. A moderate earthquake could subject the site to very strong ground shaking and cause land slides especially along the Rodeo Creek corridor. Other known active faults include the West Napa, Healdsburg-Rodger's Creek, Calaveras, and San Andreas which could cause groundshaking (Watershed Sciences 2006). No active faults are

known on the project site although a northeast trending fault is shown to displace bedrock units and cross Rodeo Creek beyond the eastern property boundary.

There would be no impact to existing structure from ground shaking. The proposed project does not include construction of any habitable structures. Design of the proposed bridge will incorporate measures to withstand the level of ground shaking projected for the site in accordance with current building codes. The effects of ground shaking will be less than significant.

iii) Seismic-related ground failure, including liquefaction?

Less than Significant Impact. Due to the predominantly clayey subsurface soils and low groundwater level observed during field exploration, the impact from liquefaction and ground failure are not expected to be significant (Earthmax Consultants, June 2006).

iv) Landslides?

Less than Significant Impact with Mitigation Incorporated. Natural deep-seated earth flow, shallow debris slides, slumps and channel failure have been noted at the site. Soils at the site have a relatively high potential for slides (Vollmar 2006). These slides may have been increased by the long-term intensive grazing practices. The landslides may have been further exacerbated by past construction of the railroad upstream but outside of the site boundary and culvert outfall onsite. Active landslides have created constricted reaches and very high sediment loads at the creek (Watershed Sciences 2006).

The following mitigation measure would be incorporated during the construction and operation of the project to reduce the impact. With the inclusion of this mitigation measure as part of the project the impact would be less than significant.

> **<u>Mitigation Measure GEO-1</u>: Grazing practices shall be implemented to minimize and potentially reduce the impacts from grazing to the site's soils and slope stability.**

b) Would the project result in substantial soil erosion or the loss of topsoil?

Less than Significant Impact with Mitigation Incorporated. The proposed project includes measures to minimize soil erosion. The project will have temporary impacts due to grading that could result in erosion of hill side and stream bank slopes. Construction on these slopes will be during the dry season (between July and October 15). Erosion control plans will be included in the Stormwater Pollution Prevention Plan (SWPPP) required for any grading permit or activity that ay take place at the site. Some re-vegetation work will extend into the late fall beyond October 15th to take advantage of the rainy season to establish plantings without irrigation.

The project will have an overall benefit in reducing erosion at the site whereas leaving the site in its current condition (no project) will have a substantial negative effect on erosion in Rodeo Creek and its tributaries due top continuing bank failure. The project will significantly reduce the soil loss to the creek and tributaries and stabilize the creek's banks. Overall the project will be a benefit by controlling soil erosion and reducing soil loss.

The following mitigation measure would be incorporated during the construction and operation of the project to reduce the impact. With the inclusion of this mitigation measure as part of the project the impact would be less than significant.

> **Mitigation Measure GEO-2: Construction shall occur during the dry season. Placement of erosion control fabric and replanting shall occur immediately after construction to minimize erosion. Seeding shall be placed under the erosion control fabric and re-vegetation planting work shall occur after the fabric is in place. (Live cuttings are installed through the fabric and container stock is planted by first cutting the fabric and then folding it back and pinning it in place.) Grading or other work in the creek channel shall occur between July 15th and October 15th. Re-vegetation outside of the channel may occur beyond the October 15th deadline. Re-vegetation of exposed soils due to trail construction shall occur as soon a feasible after construction is complete.**

c) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Less than Significant Impact with Mitigation Incorporated. The proposed project is located on soils that are not subject to significant lateral spreading, subsidence, liquefaction or collapse. The project would not result in off-site landslides. On site landslides could occur if grading and other construction activities occur without the proper precautions. Measures previously described in Mitigation Measure GEO-2 will reduce the impact to less than significant.

With the inclusion of **Mitigation Measure GEO-2** as part of the project the impact would be less than significant.

d) Would the project be located on expansive soil, as defined in Table 18- 1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

No Impact. The project does not propose construction of any structures that would be subject to the Uniform Building Code (1994) and would not create substantial risks to life or property.

e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact. The proposed project does not include restrooms with any wastewater discharge. Portable restroom will be located onsite but all maintenance will be offsite.

4.7 HAZARDS AND HAZARDOUS MATERIALS

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

No Impact. The proposed project would not transport, use or dispose hazardous waste material and therefore no impact would occur. Chemicals removed as part of the portable toilet maintenance will be handled in accordance with all applicable waste disposal laws.

b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less Than Significant Impact with Mitigation Incorporated. The proposed project would not include operations that could result in the release of hazardous materials to the environment and therefore no impact would occur. However, during construction there would be heavy equipment and supplies on the site that could result in a release of hazardous materials such as fuel and lubricants. The project is also crossed by an underground high pressure gas line that passes under Rodeo Creek and through the meadows and hillsides. It is marked with signs, but has historically been subject to risk due to the creek bank erosion and undercutting. The project will stabilize the creek and therefore provide additional protection to the pipeline. However, accidental damage to the line could result during construction if the location and depth are not properly identified and the pipeline protected.

The following mitigation measures would reduce these potential impacts to a less-than-significant level.

> **Mitigation Measure HAZ-1: The project sponsor shall implement a Stormwater Pollution Prevention Plan (SWPPP) including management and protective measures, as well as emergency response measures as necessary, including conducting maintenance of heavy construction vehicles off-site, providing blankets and enclosures to capture fuel spills, and providing a parking area for heavy construction vehicles that is protected from leaks into the soil of water.**
>
> **Mitigation Measure HAZ-2: The project sponsor shall verify on plans and in the field the precise location of the high pressure gas line in areas that could be affected by construction activity including staging, transportation, grading and planting, and provide this information to all parties involved via plans and field markings. All work within 100 feet of the pipeline shall be closely supervised to ensure complete**

protection of the line at all times. The project sponsor shall coordinate on-going monitoring with the pipeline owner/operator throughout the life of the project.

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact. The proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste and therefore no impact would occur.

d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. The project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and therefore no impact would occur.

e) For a project within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

No Impact. The project site is not included within an airport land use plan or within two miles of a public airport or public use airport, and therefore no impact would occur.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No Impact. The project is not within the vicinity of a private airstrip and therefore no impact would occur.

g) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact. The project would not interfere with or change existing emergency response and evacuation plans and therefore no impact would occur. In addition, the existing fire road would be maintained for emergency vehicle access to the site and vicinity.

h) Would the project expose people or structures to significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Less than Significant Impact. The project includes wildlands and has the potential of increasing fire risk due to the increased use of the site for public access. The construction of the bridge and fire road (Trail A) will allow improved access to the site by the fire department and

act as a firebreak. Also, signage will be posted prohibiting the use of firearms and making fires. Signage and stewardship programs will illustrate the importance of fire safety and tell users what to do and where to go if fire occurs onsite. Fire management will consist primarily of grazing to reduce fuel loads. Informative signage, fire breaks, grazing to reduce fire loads and patrolling the area will be part of the site management to prevent wildland fires. MHLT will patrol the site on the ground, locking and unlocking the gates to the site each day. Fire patrolling will also come from the air with East Bay Regional Parks District and East Bay Municipal Utility District coordinated patrols.

4.8 HYDROLOGY AND WATER QUALITY

a) Would the project violate any water quality standards or waste discharge requirements?

Less than Significant Impact with Mitigation Incorporated. The proposed project will be subject to review and approval by the Regional Water Control Board and United States Corps of Engineers as part of the grading permit, which will involve work within the creeks and wetlands on the site. Following construction, public access is not expected to have any water quality impacts. Grazing of the site will continue at the same intensity as has previously occurred.

> **Mitigation Measure HYD-1: The project sponsor shall obtain all necessary reviews and approvals from regulatory agencies prior to initiating work that could affect waters of the State or of the United States, pursuant to applicable laws, regulations and orders.**

b) Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?

No Impact. The project does not propose to use any groundwater resources. New paving and development is limited to minor trails and parking areas, as well as the new bridge and some small areas of impervious paving for handicap-accessible parking and circulation that will drain by sheet flow to swales and back into the soils on the site, thereby maintaining existing groundwater recharge. There will be no impact to groundwater recharge.

c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site?

Less than Significant Impact. As part of the creek restoration, it will be necessary to alter the course of the stream; however this alteration will reduce the substantial erosion and bank failure that currently occurs onsite. The extensive erosion and incising in the area has increased in

recent years. Stream restoration will benefit Rodeo Creek by creating a more stable creek thus reducing erosion. It will have no impact to offsite locations. Restoration of Rodeo Creek will stabilize steep, eroding creek banks, and improve water quality and riparian habitat. Without intervention, Rodeo Creek will continue to transport large amounts of sediment downstream as approximately 2,250 linear feet of near vertical, degraded creek banks continue to erode. Slot Creek and Fern Creek will also receive minor stabilization work at culverts and stock ponds to improve flows and reduce siltation.

Construction-related activities include the temporary dewatering of some portions of Rodeo Creek during construction to minimize siltation into the creek from construction activity. This activity will only occur from July 15 to October 15 to avoid high water levels and minimize impact on sensitive species.

The following project activities will reduce erosion at the site.

Channel Fill: Excavated bank soils will be used as channel fill. In tandem with riffle starters, the fill will raise the bed elevation adding additional flood-prone width and reducing stream velocities.

Boulder Placement: At three locations, riffle starters constructed of ¼- to 1-ton boulders will be placed into the bed and lower banks to reduce the potential for further channel incision. The rock structure will not be mortared and will be placed below the bed of the channel. The banks at these locations will receive additional soil bioengineering treatments.

Erosion Control Fabrics: All soils disturbed in the grading of the Rodeo Creek bed and banks will be treated with 100% natural material, erosion control fabrics. Erosion control fabrics will include Coir blankets and/or jute netting. Fabrics will be anchored with biodegradable stakes.

Re-vegetation: All areas affected by the bank stabilization measures will be revegetated with native plant species using both soil-bioengineering and deep root container methods. Soil bioengineering treatments will include the use of live willow and dogwood cuttings. Native species that cannot be propagated vegetatively will be planted using deep-root stock or non-irrigated techniques.

d) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or offsite?

Less than Significant Impact. The site is not currently subject to flooding. The proposed stream restoration work will stabilize the streambed and minimize the likelihood of future flooding thereby benefiting the flood capacity at the site.

e) Would the project create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less than Significant Impact. The proposed project would include minor amounts of grading and paving for trails and the staging area, which will sheet flow into swales and surrounding soils, resulting in no net increase in stormwater runoff. The bridge would also add a small area of impervious surface at the site, which would drain into the creek. This impact would be less than significant.

f) Would the project otherwise substantially degrade water quality?

Less than Significant Impact. Construction on the channel banks and in the channel bed could result in increased sediment loads to the creek. This potential impact is mitigated by the implementation of the mitigation measure described above. After restoration the level of erosion of the creek bed will be substantially reduced which will improve water quality at the site and downstream.

g) Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No Impact. Residential development is not part of the project and therefore there is no impact.

h) Would the project place within a 100-year flood hazard area structures, which would impede or redirect flood flows?

No Impact. No structures that would impede or redirect flow within the 100-year flood hazard area are proposed. The bridge will be designed to meet all flood control requirements and be constructed to specifically avoid any potential to impede flow.

i) Would the project expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?

No Impact. There are no levees or dams on currently on the site or proposed as part of the project. Existing stock ponds and culverts will be replaced and/or stabilized, and the bridge across Rodeo Creek will provide a clearspan above the flood elevation of the creek. Creek bank stabilization work will provide additional floodplain areas to reduce the flow energy of the creek, and reduce the potential for fallen trees and other debris to block the flow of the creek, thereby reducing flooding hazards at the site and offsite.

j) Would the project cause inundation by seiche, tsunami, or mudflow?

No Impact. The site is located is not located near any ocean or bodies of water where a tsunami or seiche could occur. There is no evidence of past mudflows at the site and it is unlikely that any of the construction from the project would increase the risk of mudflows.

4.9 LAND USE AND PLANNING

a) Would the project physically divide an established community?

No Impact. The proposed project is established open space and would not change that use. It is adjacent to other large properties planned and used for ranching and equestrian activity. There would be no affect on the existing pattern of land use or circulation that could divide the community.

b) Would the project be inconsistent with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purposed of avoiding or mitigating an environmental effect?

Less than Significant Impact with Mitigation Incorporated. The County General Plan designation for the site is Agricultural Lands (AL), which allows for the land to be used for open space and/or recreational uses, and the proposed project to develop a trail and public access would be compatible with this designation. The site is zoned for agricultural uses under the A-4: Agricultural Preserve District and will be used for grazing purposes and as open space and public access. The A-4 District has been typically used to zone agricultural lands that have been placed under a Land Conservation Contract or Williamson Act contract.

In 1969 this site, more commonly known as Fernandez Ranch property, was zoned under the A-4 District and a Williamson Act contract and Agricultural Preserve (AP#4-69) was simultaneously established on the property (County File: RZ#1311). While the A-4 District does not specifically refer to trails and related public use among the permitted uses or uses requiring a land use permit, this district does allow uses described in Section 51201(e) of the Government Code, or those uses "compatible" with the Williamson Act, as uses permitted on the issuance of a land use permit (see County Ordinance Code Sec 84-42.404(17)). Section 51201(3) of the Government Code defines "compatible use" to be agricultural use, recreational use, or open space use unless the Board of Supervisors finds after notice and hearing that the use is not compatible.

The site will be maintained primarily for agricultural use (continuation of grazing) in compliance with the requirements of the Williamson Act. The Williamson Act provides that "recreational use is the use of the land in its agricultural or natural state by the public, with or without charge, for any of the following: walking, hiking, picnicking, camping, swimming, boating, fishing, hunting , or other outdoor games or sports for which facilities are provided for public participation" (see Section 51201(n) of the Government Code); and the Act provides that "open space use is the use or maintenance of land in a manner that preserves its natural characteristics, beauty, and openness for the benefit and enjoyment of the public, to provide essential habitat for

wildlife, ..." (see Section 51201(o) of the Government Code). Based on the foregoing, the trail and public access proposed as part of the project would not be in conflict with A-4 District or the County's Williamson Act Program. However, so as to remove any doubt about a potential conflict between the trail and public access and the County's Williamson Act Program, the project sponsor will be responsible for obtaining a land use permit in conjunction with an amendment to the Williamson Act contract (AP#4-69) to establish the trail and public access as a permitted use on the property. "Implementation of Mitigation Measures AG-1 and AG-2 will reduce the potential conflicts with zoning and the Williamson Act contract to a less-than-significant level.

c) Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. No habitat conservation plan or natural community conservation plan applies to the site, therefore there is no impact.

4.10 MINERAL RESOURCES

a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact. There are no known mineral resources on the site.

b) Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No Impact. There is no mineral resources recovery site at the project site.

4.11 NOISE

a) Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less than Significant Impact. The proposed project would not generate noise levels in excess of standards established in the noise ordinance or other applicable standards. Construction activity would require the use of heavy equipment, including delivery, grading, and bridge installation, and public access and maintenance activity would involve the use of motor vehicles along Christie Road and Highway 4. The noise along the travel routes and at the site during construction would be short-term and temporary, and there are few residences or other sensitive uses in the vicinity. One residence along Christie Road near Highway 4 could experience a slight increase in noise levels but is largely buffered by distance. Background noise levels would

mask noise created by increased access to and use of the site by horseback riders, hikers and bicyclists. None of the noise generated by the project would exceed established standards.

b) Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Less than Significant Impact. Grading and excavation may intermittently increase groundborne vibration within the immediate vicinity of the work, but would not affect any existing neighboring uses, which are primarily large parcel grazing lands.

c) Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Less than Significant Impact. The project does not propose new uses for the site except the pedestrian, bicyclist and horseback riding trails. Vehicular access is anticipated to be primarily via private motor vehicle, with some larger vehicles for groups and special events. This would not create a substantial increase in the ambient noise level, although there would be very localized, temporary increased noise levels passing along Christie Road.

d) Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less than Significant Impact. During construction there would be a temporary increase in noise levels within the project site, but there are no sensitive receptors that could be affected. Transportation of construction equipment, deliveries, and work crews would increase vehicular noise levels along Christie Road for a three to six-month period, but this noise would not be significant.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The project is not located within an airport land use plan or within two miles of a public airport.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The project is not located within the vicinity of a private airstrip and therefore there would be no impact.

4.12 POPULATION AND HOUSING

a) Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

No Impact. The project would not induce substantial population growth and therefore there would be no impact.

b) Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

No Impact. The project would not displace any existing housing and therefore there would be no impact.

c) Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact. The project would not displace any people or housing and therefore there would be no impact.

4.13 PUBLIC SERVICES

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:

a) Fire protection?

Less than Significant Impact. The Rodeo-Hercules Fire Department has reviewed the proposed project (RDG Meeting Notes June 23, 2006). New emergency access to the site has been approved by the Fire Department which will include the new bridge and Trail A. Firebreaks will be created at the site for wildland fire control. Signage will be added. There is the potential for a slight increase in fire hazard due to the increased public use but this would be a less than significant impact. Fire patrolling will also come from the air with East Bay Regional Parks District, and East Bay Municipal Utility District coordinated patrols.

b) Police protection?

No Impact. MHLT will patrol with site on the ground, locking and unlocking the gates to the site each day. No additional police patrol of the site is anticipated and therefore there is no impact to local services. Aerial patrol is anticipated to be available from the East Bay Regional

Parks District and East Bay Municipal Utility District on an occasional basis. Trespass will be prevented by posting signs at the property perimeter and maintaining fences consistent with the agricultural setting.

c) Schools?

No Impact. The proposed project does not include any residential development and would not affect the number of students attending public schools.

d) Parks?

No Impact. The proposed project would increase public access to open space and provide additional recreational area. This would have a beneficial effect on the availability of open space/recreational areas.

e) Other public facilities?

No Impact. There would be no impact to other public facilities.

4.14 RECREATION

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No Impact. The proposed project would provide new open space for local and regional users. There would be no effect on the use of existing neighborhood and regional parks or other recreational facilities.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

Less than Significant Impact with Mitigation Incorporated. The proposed project will increase the available recreational/open space areas and provide pedestrian trails, including ADA-compliant accessible trails, and horseback riding trails allowing increased access to the open space. The project would have a positive effect on the environment by protecting and improving habitat. Trail construction and use could have a potential adverse impact. With the inclusion of the **Mitigation Measures BIO-2 through BIO-14, GEO-1, and GEO-2** the impact would be less than significant.

4.15 TRANSPORTATION/TRAFFIC

a) Would the project cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to capacity ratio on roads, or congestion at intersections)?

Less than Significant Impact. The project would result in a minor increase in traffic using the site for recreational purposes. Visitors to the site would travel there intermittently throughout the day. There are expected to be on average 10 vehicle trips per weekday and up to 25 vehicle trips per weekend day. The impact from these additional vehicle trips would be less than significant on the access road serving the site.

b) Would the project exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?

Less than Significant Impact. The potential increase in vehicle trips along Christie Road will vary during the week day and weekend. Trips will be infrequent and would not be sufficient to change the current level of service. A minor temporary increase in truck traffic will occur during construction. The impact from these additional vehicles would be less than significant.

c) Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

No Impact. This nearest airport is approximately 15 miles from the site. The project would not have any effect on air traffic patterns.

d) Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less than Significant Impact with Mitigation Incorporated. The increased activity level at the site would be limited to construction-period truck and employee activity. Longer-term traffic would be limited to users of the facility and maintenance/operations personnel. The existing intersection of Christie Road and Highway 4 is unimproved, with a sharp angle of approach and limited deceleration / merge areas particularly due to the adjacent railroad abutment. This configuration could result in temporary hazards due to large, slow-moving trucks and longer-term hazards due to unfamiliar motorists accessing the site. The following mitigation measures would reduce this potential impact to a less-than-significant level.

> **<u>Mitigation Measure TR-1</u>: The project sponsor shall consult with the County Public Works Department and Caltrans to prepare and implement a construction-period traffic control plan that would address any necessary advance warning signage, flag**

person controls, lane closures, hours of operation, and similar measures to ensure safety of motorists near the Highway 4 / Christie Road intersection.

Mitigation Measure TR-2: The project sponsor shall consult with the County Public Works Department and Caltrans to prepare and implement an operational-period traffic plan that may include advance warning signs, directional signs, and information on pamphlets, websites, and similar outlets to inform visitors of the route of access to the site and necessary safety precautions when using the Highway 4 / Christie Road intersection.

e) Would the project result in inadequate emergency access?

No Impact. The proposed project would provide improved access to the site for emergency vehicles. The construction of the bridge will enable emergency and maintenance vehicle access to the site. This access was lost when the Rodeo Creek culvert crossing was washed away in a past flood. Improvements to Trail A will provide better access for emergency vehicles to the site.

f) Would the project result in inadequate parking capacity?

Less than Significant Impact with Mitigation Incorporated. Construction-period parking will be provided within the meadow area and in localized staging areas within the site. The proposed project also would increase the long-term vehicle use at the site for public parking as part of the park visitor accommodations. Eleven new parking spaces are proposed for the site; this number of parking spaces is based on the anticipated level of usage. An unimproved overflow parking area to be located north of the staging area within an open field on the site is designated for use during the dry season only. Parking on the public street is hazardous due to the narrow width and limited site distance available. Actual use of the site may result in a demand for increased parking, which could result in overflow parking onto the street. Visitors may also choose to park along the street rather than in the staging area for purposes of accessing the site at unauthorized locations. The following mitigation measure would reduce this potential impact to a less-than-significant level.

Mitigation Measure TR-3: The project sponsor shall ensure that construction-period parking is limited to on-site areas.

Mitigation Measure TR-4: The project sponsor shall coordinate with the Public Works Department to install "No Parking" signs along Christie Road, as determined necessary by the County based on actual use of the facility, to discourage use of the public roadway for visitor parking.

Mitigation Measure TR-5: The project sponsor shall inform visitors through signage, pamphlets, and similar outlets that parking is limited to the on-site staging area.

Mitigation Measure TR-6: The project sponsor shall prepare and implement an overflow plan on the site as necessary to address actual parking demand.

g) Would the project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

No Impact. The project would not conflict with plans or policies for alternative transportation. There would be no impact from the project.

4.16 UTILITIES AND SERVICE SYSTEMS

a) Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

No Impact. The project would not have any wastewater discharge. There would be no impact from the project.

b) Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

No Impact. The project would not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities. There would be no impact from the project.

c) Would the project require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

No Impact. The project would not require or result in the construction of new stormwater drainage facilities or expansion of existing facilities. The project would result in improved stormwater conditions at the site and downstream through the stabilization of the Rodeo Creek banks and channel, and the provision of additional floodplain that could benefit downstream channel conditions. There would be no impact from the project.

d) Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

No Impact. The project has sufficient water supplies to meet the needs of grazing. No potable water is provided as part of the project. No new or expanded entitlements are required. There would be no impact from the project.

e) Would the project result in a determination by the wastewater treatment provider, which serves or may serve the project, that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

No Impact. The project would not need wastewater treatment services. There would be no impact from the project

f) Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

No Impact. The project would not generate significant additional solid waste for disposal at a landfill. All incidental waste materials would be removed from the site under contract with a municipal or commercial service provider. There would be no impact from the project

g) Would the project comply with federal, state, and local statutes and regulations related to solid waste?

No Impact. The project would comply with all statues and regulations related to solid waste disposal. There would be no impact from the project.

4.17 MANDATORY FINDINGS OF SIGNIFICANCE

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less than Significant with Mitigation Incorporated. During stream restoration and trail construction, the grading and excavation necessary to improve the stream and construct the trails would temporarily eliminate some habitat and possibly disrupt animal populations. With the implementation of mitigation measures BIO-12 and BIO-13, the impact to plant and animal species would be less than significant. Less that ½ acre of permanent loss of seasonal and riparian wetland due to trail and staging area construction would occur. This seasonal wetland loss would be mitigated with in-kind wetland restoration and would improve habitat values at the site particularly with the improved quality of the riparian habitat along Rodeo Creek. The riparian wetlands will be replaced in-kind at least a 2:1 ratio (up to 0.35-acre loss, 0.85 acres of new riparian wetlands). After construction, the quality of the habitat along Rodeo Creek is

expected to have beneficial effects on the plant and animal populations that use riparian habitat. Therefore the impact would be less than significant with the mitigation incorporated.

b) Does the project have impacts that are individually limited but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

No Impact. There are no known development projects in the area that would cumulatively create a significant impact with the construction of this project.

c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

No Impact. The project would maintain the existing livestock grazing use, improve habitat and provide a local and regional open space/recreational area. There would be a small loss of seasonal wetland area, which will be mitigated in the immediate vicinity (within the project site). With the implementation of the proposed mitigation measures the project would not have adverse effects on humans.

4.18 REPORT PREPARATION

This Initial Study and Mitigated Negative Declaration was prepared by a team of consultants including GAIA Consulting Inc. and NRM Environmental Consulting with analysis of topographical, geological, soils, and hydrological issues by Watershed Sciences; erosion, drainage and creek restoration issues by Restoration Design Group; grazing management by Dr. Larry Ford; biological resources analysis and property management planning by Vollmar Consulting; geological and geotechnical analysis by EarthMax Consultants; trails alignment by Alta Planning + Design and John Aranson, Bay Area Ridge Trail Council; and cultural resources analysis by the Archeo-Tec Inc.

5.0 References

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FIGURES

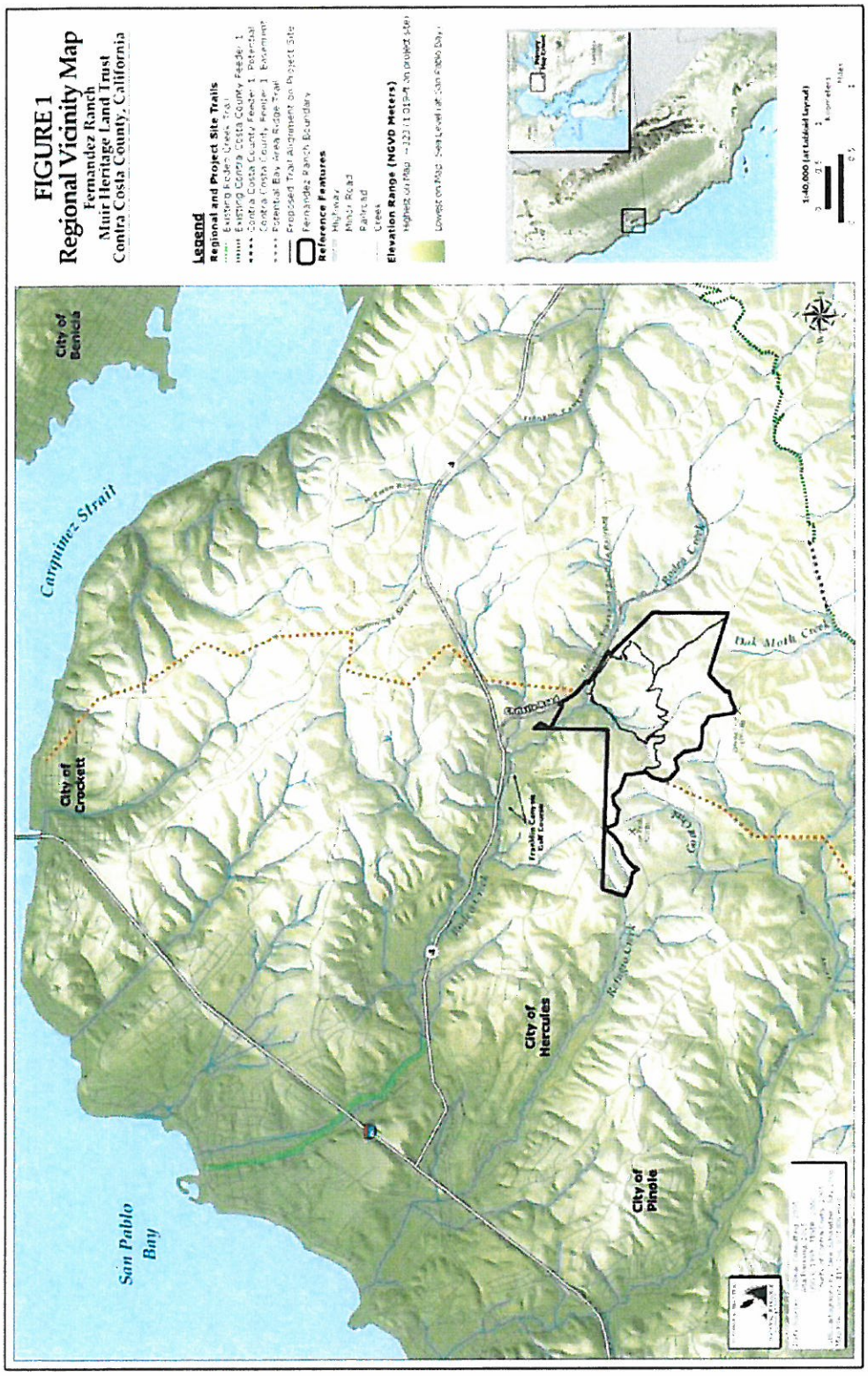
FIGURE 1
Regional Vicinity Map
Fernandez Ranch
Muir Heritage Land Trust
Contra Costa County, California
Legend
Regional and Project Site Trails
Existing Bollen Creek Trail
Existing County Contra Costa County Feeder 1
Contra Costa County Feeder 1 Potential
Contra Costa County Feeder 1 Potential
Potential Bay Area Ridge Trail
Proposed Trail Alignment on Project Site
Fernandez Ranch Boundary
Reference Features
Highway
Major Road
Railroad
Creek
Elevation Range (NGVD Meters)
Highest on Map
Lowest on Map
1:40,000 (at tabloid layout)
Carquinez Strait
San Pablo Bay
City of Benicia
City of Crockett
City of Hercules
City of Pinole
Franklin Canyon Golf Course
Refugio Creek
Rodeo Creek
Oak Moth Creek

FIGURE 1

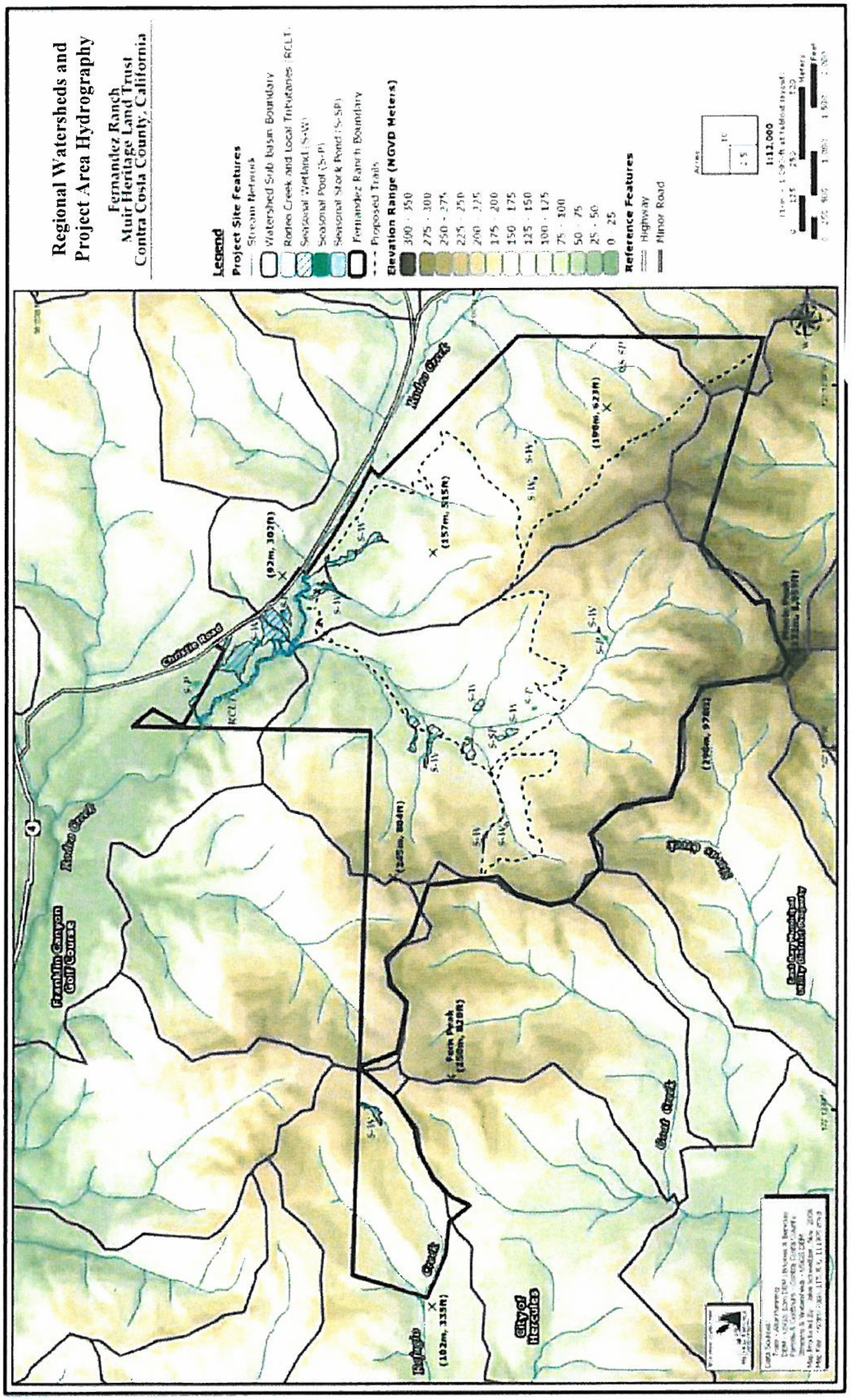
Regional Watersheds and Project Area Hydrography
Fernandez Ranch
Muir Heritage Land Trust
Contra Costa County, California
Legend
Project Site Features
Stream Network
Watershed Sub-basin Boundary
Rodeo Creek and Local Tributaries (RCLT)
Seasonal Wetland (S-W)
Seasonal Pool (S-P)
Seasonal Stock Pond (S-SP)
Fernandez Ranch Boundary
Proposed Trails
Elevation Range (NGVD Meters)
Reference Features
Highway
Minor Road
Rodeo Creek
Christie Road
Franklin Canyon Golf Course
City of Hercules

FIGURE 2

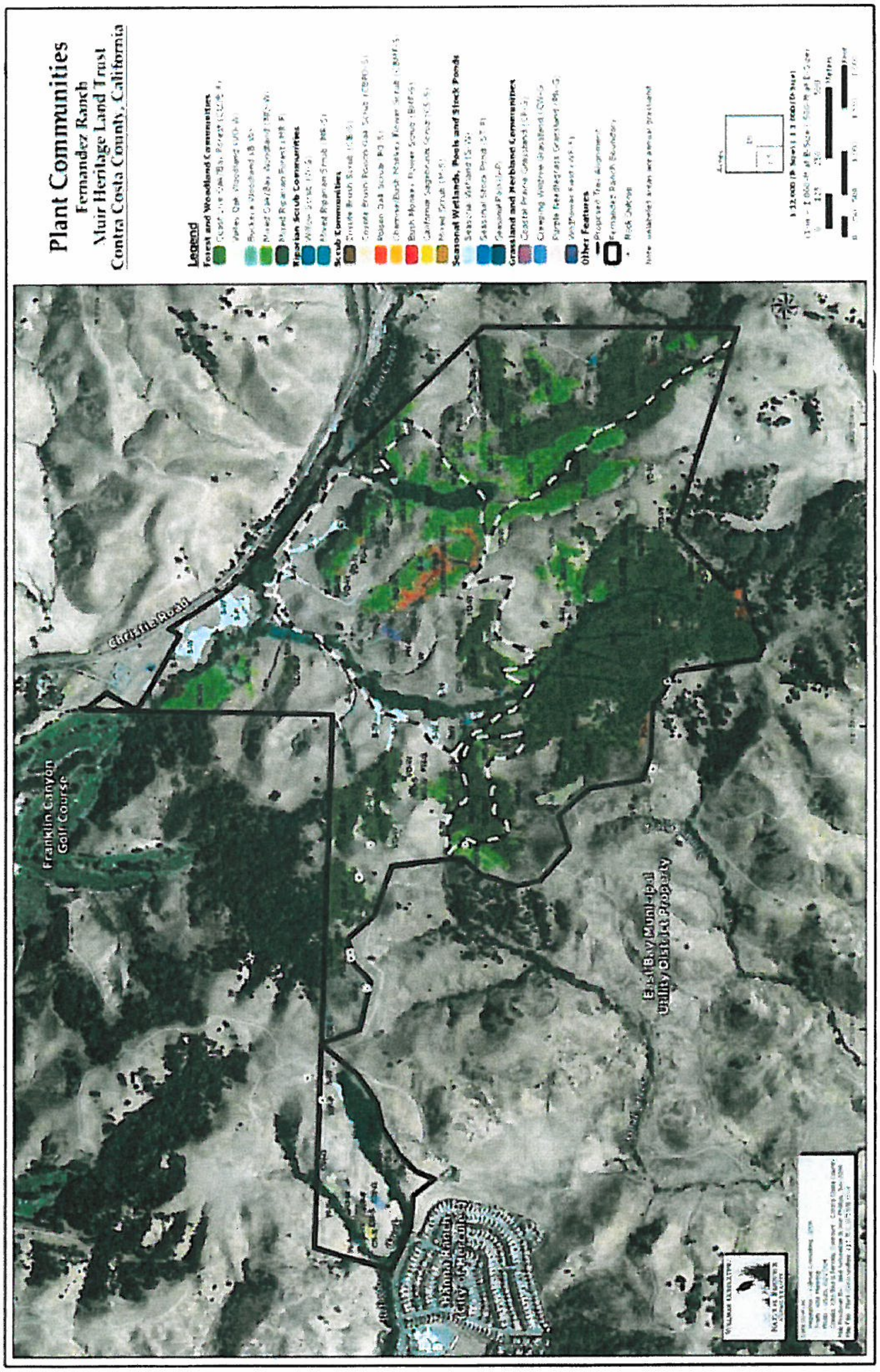
Plant Communities
Fernandez Ranch
Muir Heritage Land Trust
Contra Costa County, California
Legend
Christie Road
Franklin Canyon
Golf Course
East Bay Municipal
Utility District Property

FIGURE 3

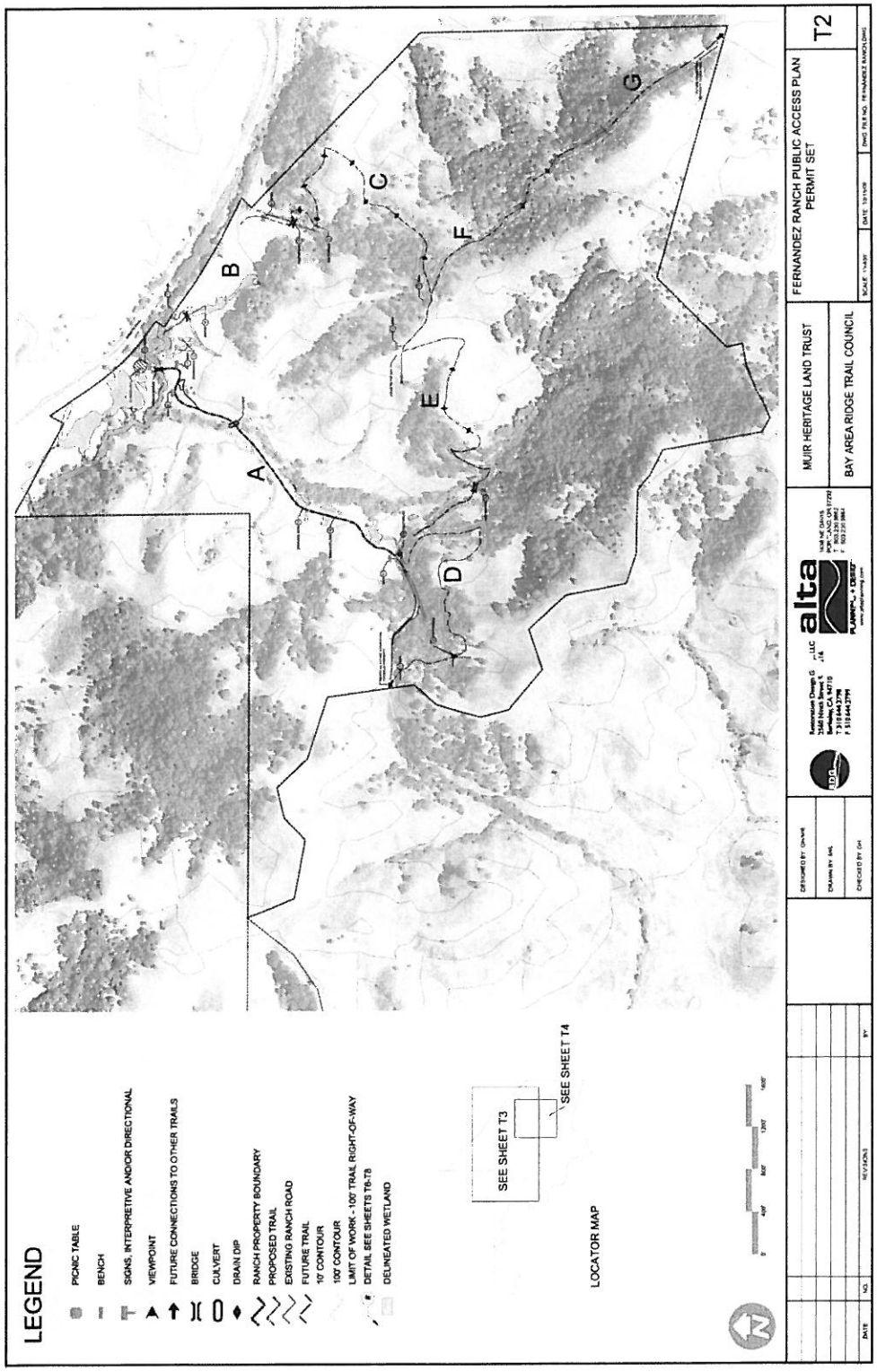
LEGEND
PICNIC TABLE
BENCH
SIGNS, INTERPRETIVE AND/OR DIRECTIONAL
VIEWPOINT
FUTURE CONNECTIONS TO OTHER TRAILS
BRIDGE
CULVERT
DRAIN DIP
RANCH PROPERTY BOUNDARY
PROPOSED TRAIL
EXISTING RANCH ROAD
FUTURE TRAIL
10' CONTOUR
100' CONTOUR
LIMIT OF WORK - 100' TRAIL RIGHT-OF-WAY
DETAIL SEE SHEETS T6-T8
DELINEATED WETLAND
SEE SHEET T3
SEE SHEET T4
LOCATOR MAP
A
B
C
D
E
F
G
alta
MUIR HERITAGE LAND TRUST
BAY AREA RIDGE TRAIL COUNCIL
FERNANDEZ RANCH PUBLIC ACCESS PLAN
PERMIT SET
T2

FIGURE 4

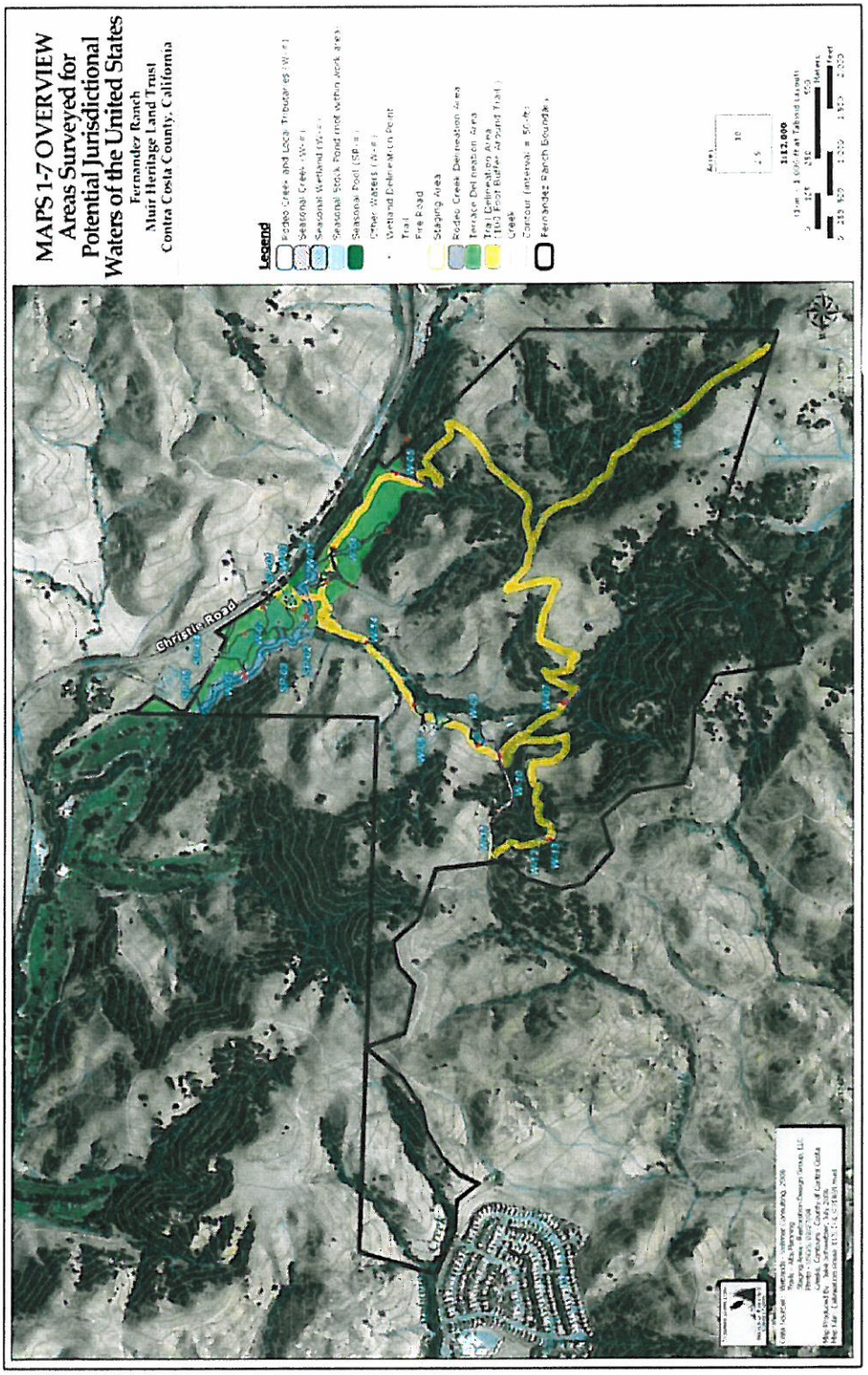
MAPS 1-7 OVERVIEW
Areas Surveyed for
Potential Jurisdictional
Waters of the United States
Fernandez Ranch
Muir Heritage Land Trust
Contra Costa County, California
Legend
Christie Road

FIGURE 5A

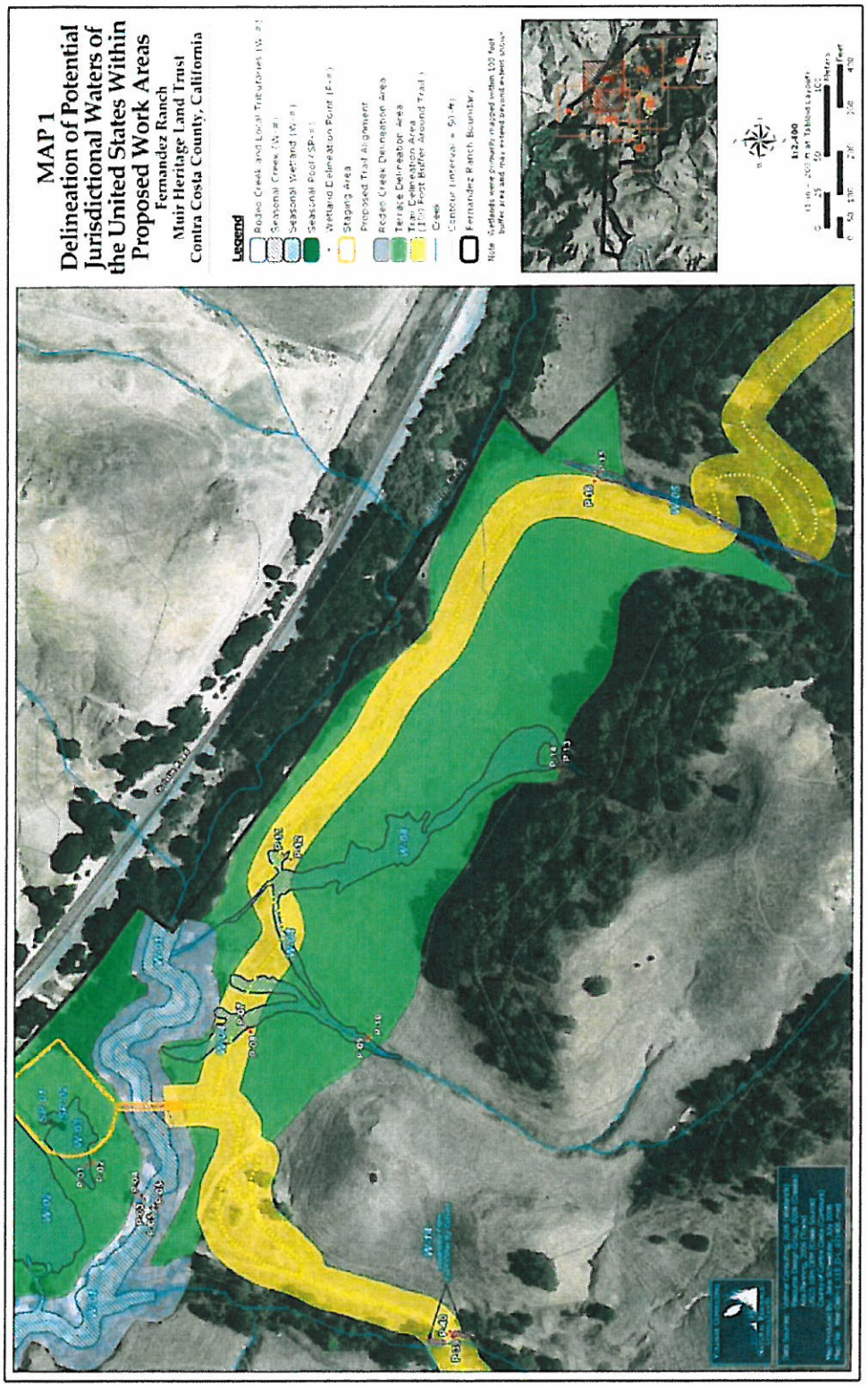
MAP 1
Delineation of Potential Jurisdictional Waters of the United States Within Proposed Work Areas
Fernandez Ranch
Muir Heritage Land Trust
Contra Costa County, California
Legend
Note

FIGURE 5B


MAP 2
Delineation of Potential Jurisdictional Waters of the United States Within Proposed Work Areas
Fernandez Ranch
Muir Heritage Land Trust
Contra Costa County, California
Legend
Proposed Trail Alignment
100 Foot Buffer Around Trail
Creek
Contour Interval = 50 ft
Fernandez Ranch Boundary
Note: No Wetlands Within Map Extent
1:3,400

FIGURE 5C

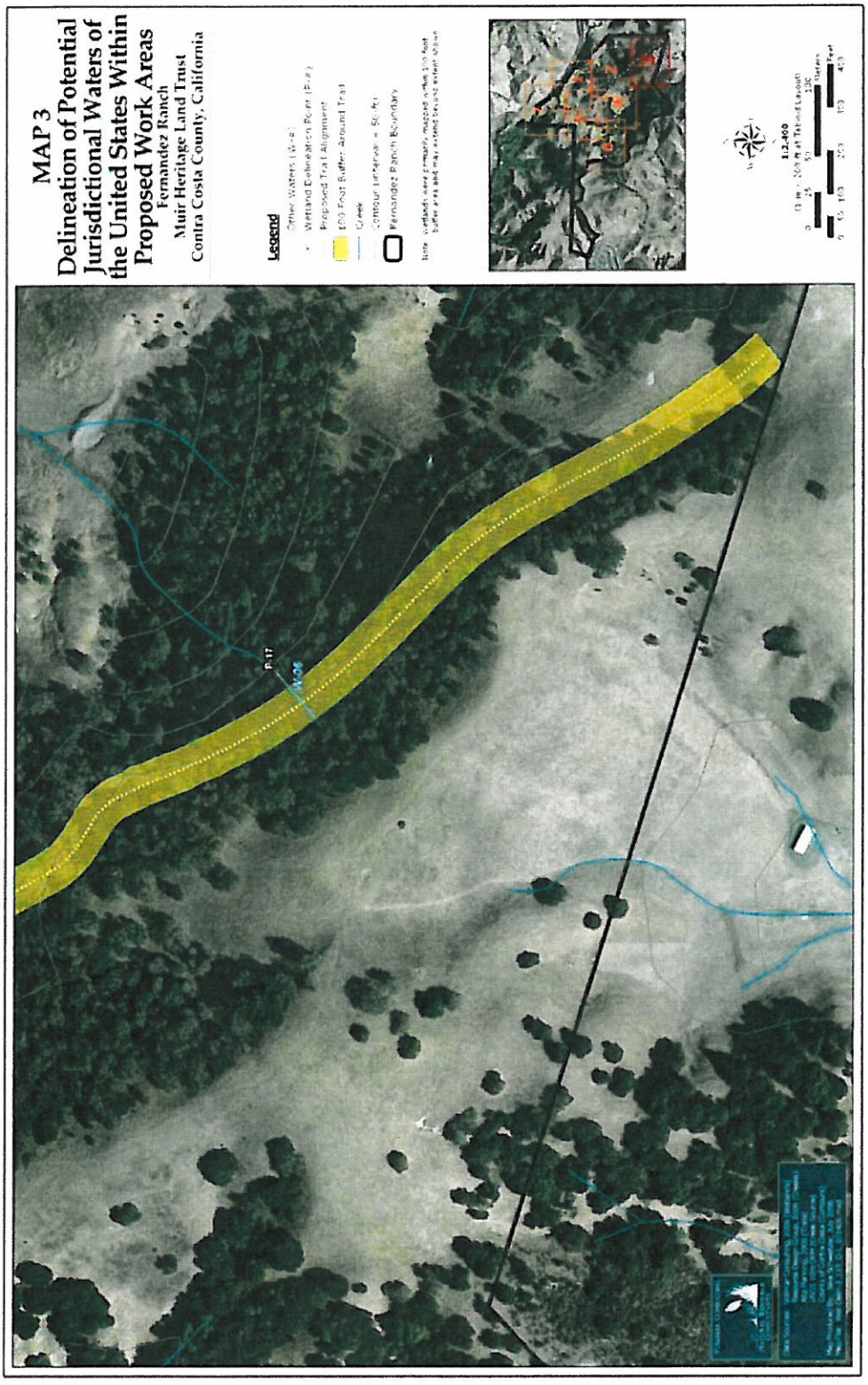
MAP 3
Delineation of Potential Jurisdictional Waters of the United States Within Proposed Work Areas
Fernandez Ranch
Muir Heritage Land Trust
Contra Costa County, California
Legend
Fernandez Ranch Boundary
1:2,400

FIGURE 5D

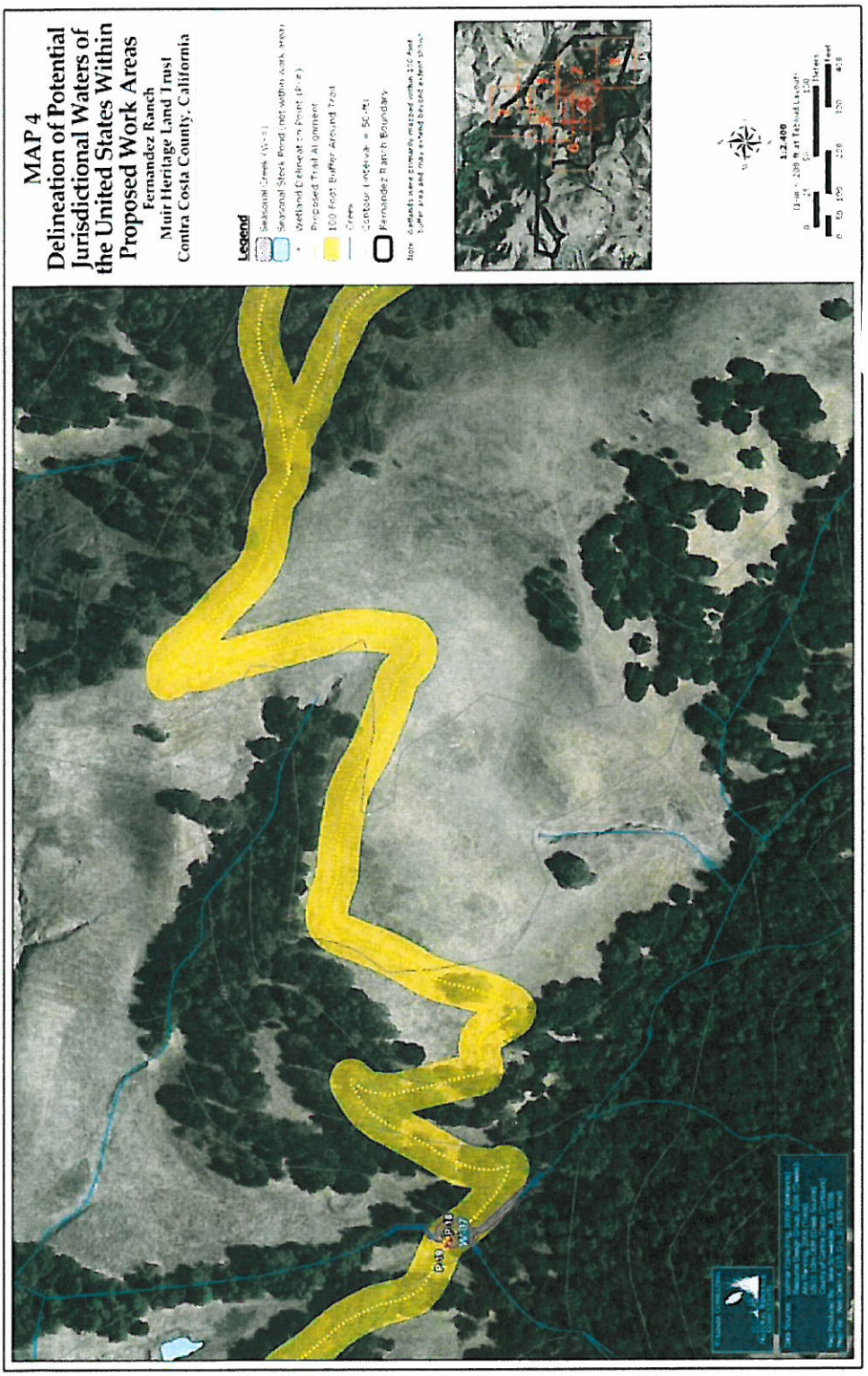
MAP 4
Delineation of Potential Jurisdictional Waters of the United States Within Proposed Work Areas
Fernandez Ranch
Muir Heritage Land Trust
Contra Costa County, California
Legend
Proposed Trail Alignment
100 Foot Buffer Around Trail
Creek
Fernandez Ranch Boundary
1:2,400

FIGURE 5E

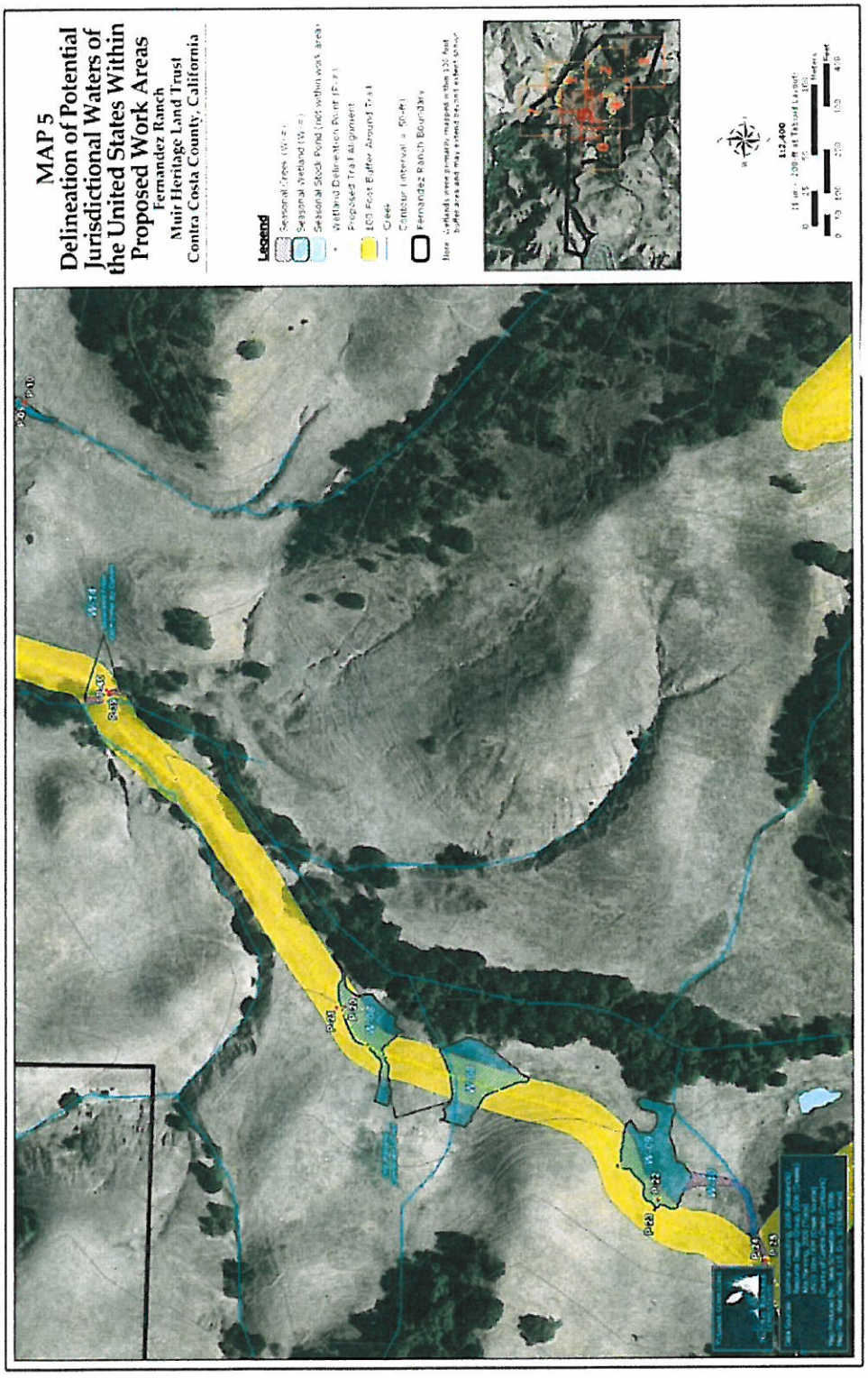
MAP 5
Delineation of Potential Jurisdictional Waters of the United States Within Proposed Work Areas
Fernandez Ranch
Muir Heritage Land Trust
Contra Costa County, California
Legend
Seasonal Creek (Wet)
Seasonal Wetland (Wet)
Seasonal Stock Pond (not within work area)
Wetland Delineation Point (Wet)
Proposed Trail Alignment
100 Foot Buffer Around Trail
Creek
Contour Interval = 50 (ft)
Fernandez Ranch Boundary
1:2,400

FIGURE 5F

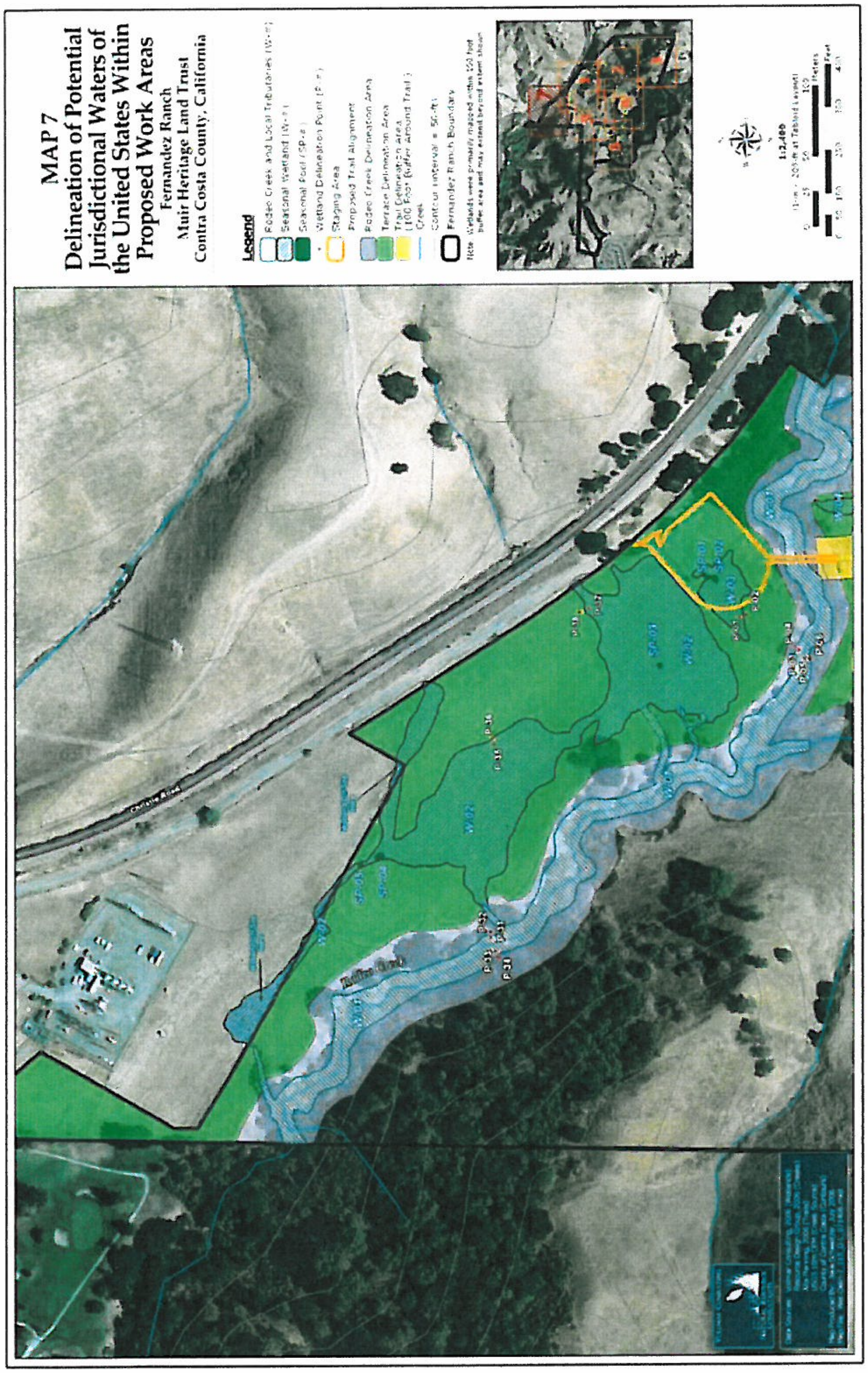
MAP 7
Delineation of Potential Jurisdictional Waters of the United States Within Proposed Work Areas
Fernandez Ranch
Muir Heritage Land Trust
Contra Costa County, California
Legend

FIGURE 5H

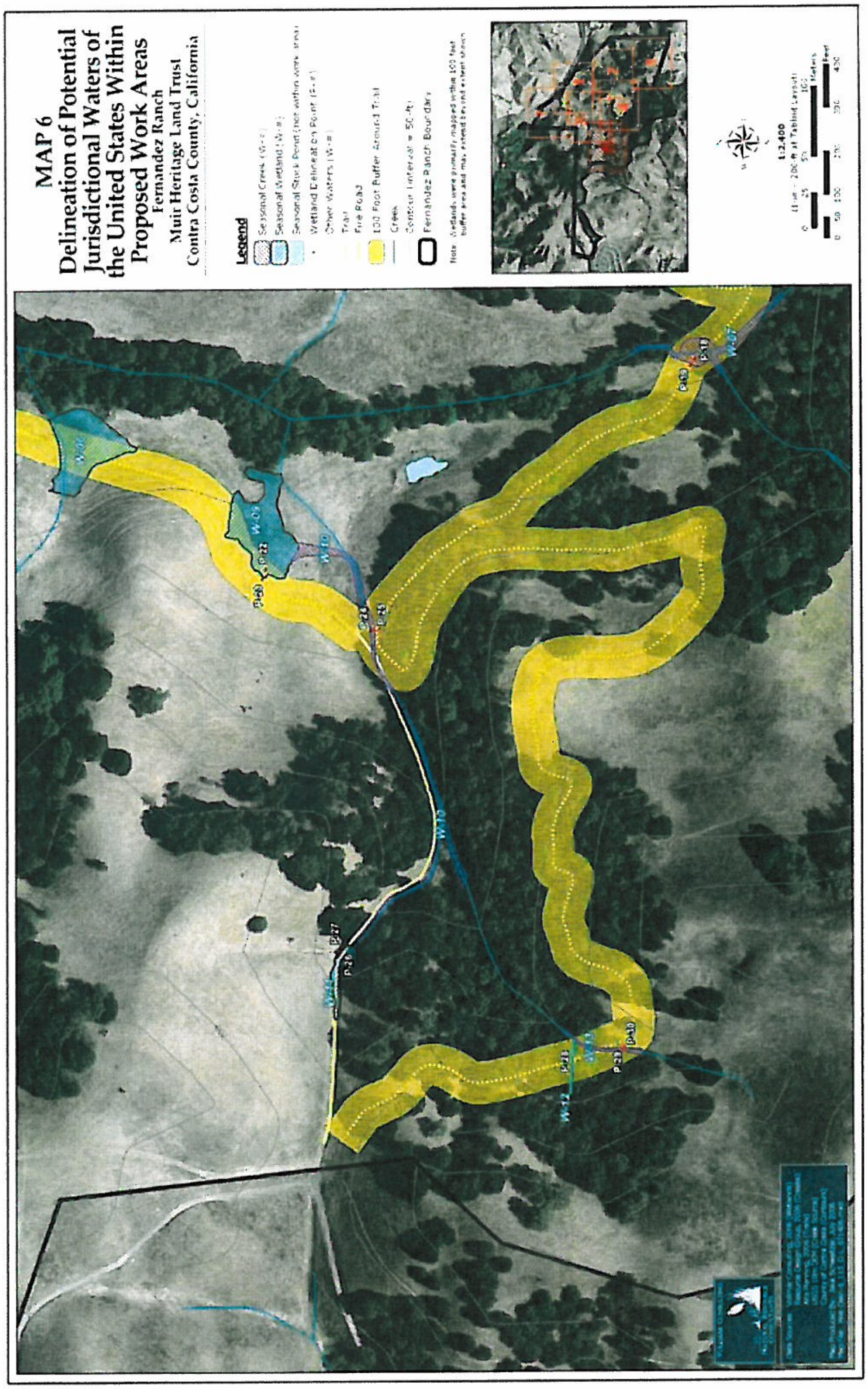
MAP 6
Delineation of Potential Jurisdictional Waters of the United States Within Proposed Work Areas
Fernandez Ranch
Muir Heritage Land Trust
Contra Costa County, California
Legend
1:2,400

FIGURE 5G

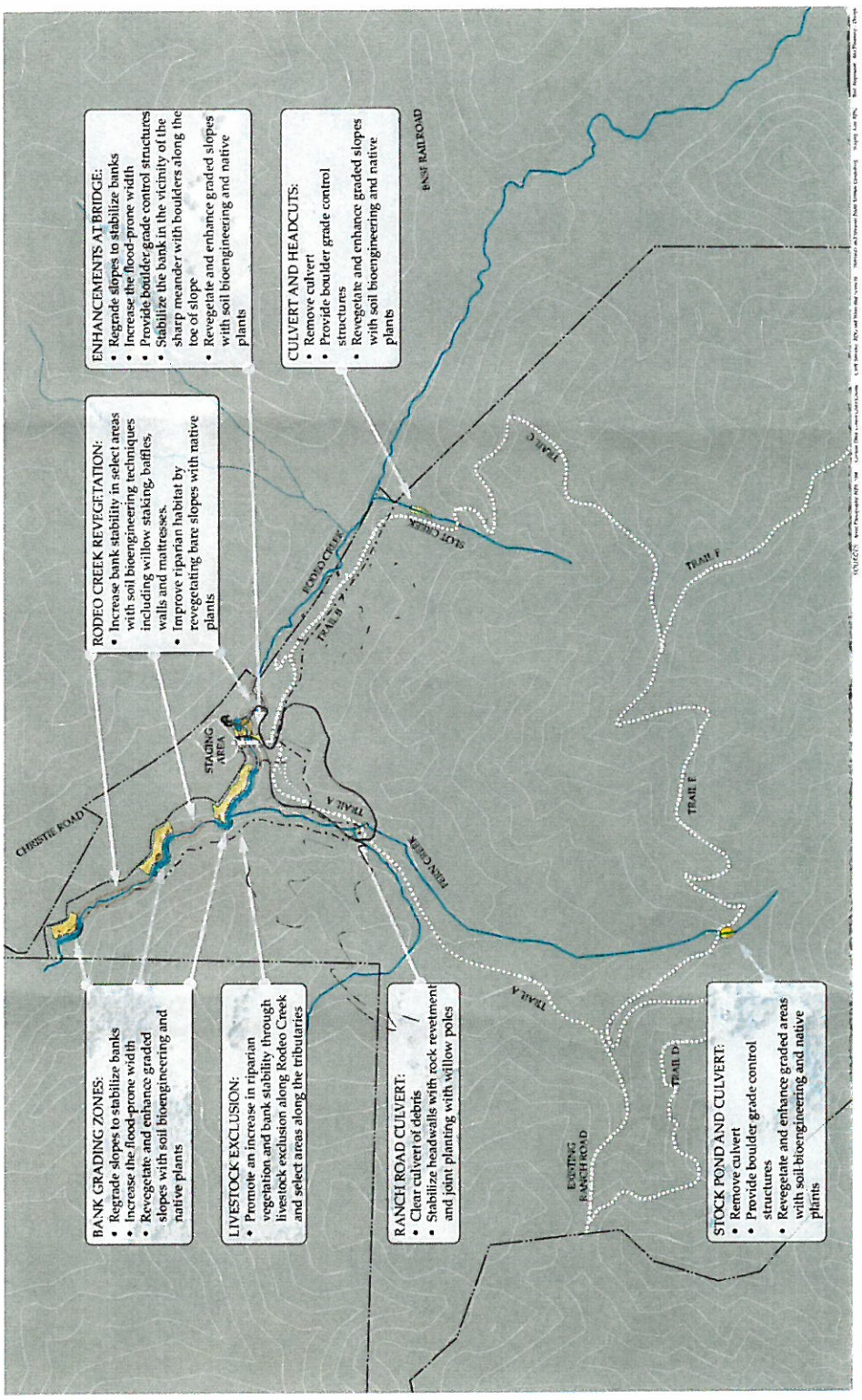
ENHANCEMENTS AT BRIDGE:
• Regrade slopes to stabilize banks
• Increase the flood-prone width
• Provide boulder grade control structures
• Stabilize the bank in the vicinity of the sharp meander with boulders along the toe of slope
• Revegetate and enhance graded slopes with soil bioengineering and native plants
CULVERT AND HEADCUTS:
• Remove culvert
• Provide boulder grade control structures
• Revegetate and enhance graded slopes with soil bioengineering and native plants
RODEO CREEK REVEGETATION:
• Increase bank stability in select areas with soil bioengineering techniques including willow staking, baffles, walls and mattresses.
• Improve riparian habitat by revegetating bare slopes with native plants
BANK GRADING ZONES:
• Regrade slopes to stabilize banks
• Increase the flood-prone width
• Revegetate and enhance graded slopes with soil bioengineering and native plants
LIVESTOCK EXCLUSION:
• Promote an increase in riparian vegetation and bank stability through livestock exclusion along Rodeo Creek and select areas along the tributaries
RANCH ROAD CULVERT:
• Clean culvert of debris
• Stabilize headwalls with rock revetment and joint planting with willow poles
STOCK POND AND CULVERT:
• Remove culvert
• Provide boulder grade control structures
• Revegetate and enhance graded areas with soil bioengineering and native plants
CHRISTIE ROAD
STAGING AREA
TRAIL A
TRAIL B
TRAIL C
TRAIL D
TRAIL E
TRAIL F
RODEO CREEK
SLOUGH CREEK
POND CREEK
EXISTING RANCH ROAD
SNSF RAILROAD
Legend
PRELIMINARY CREEK RESTORATION PLAN
FERNANDEZ RANCH

FIGURE 6

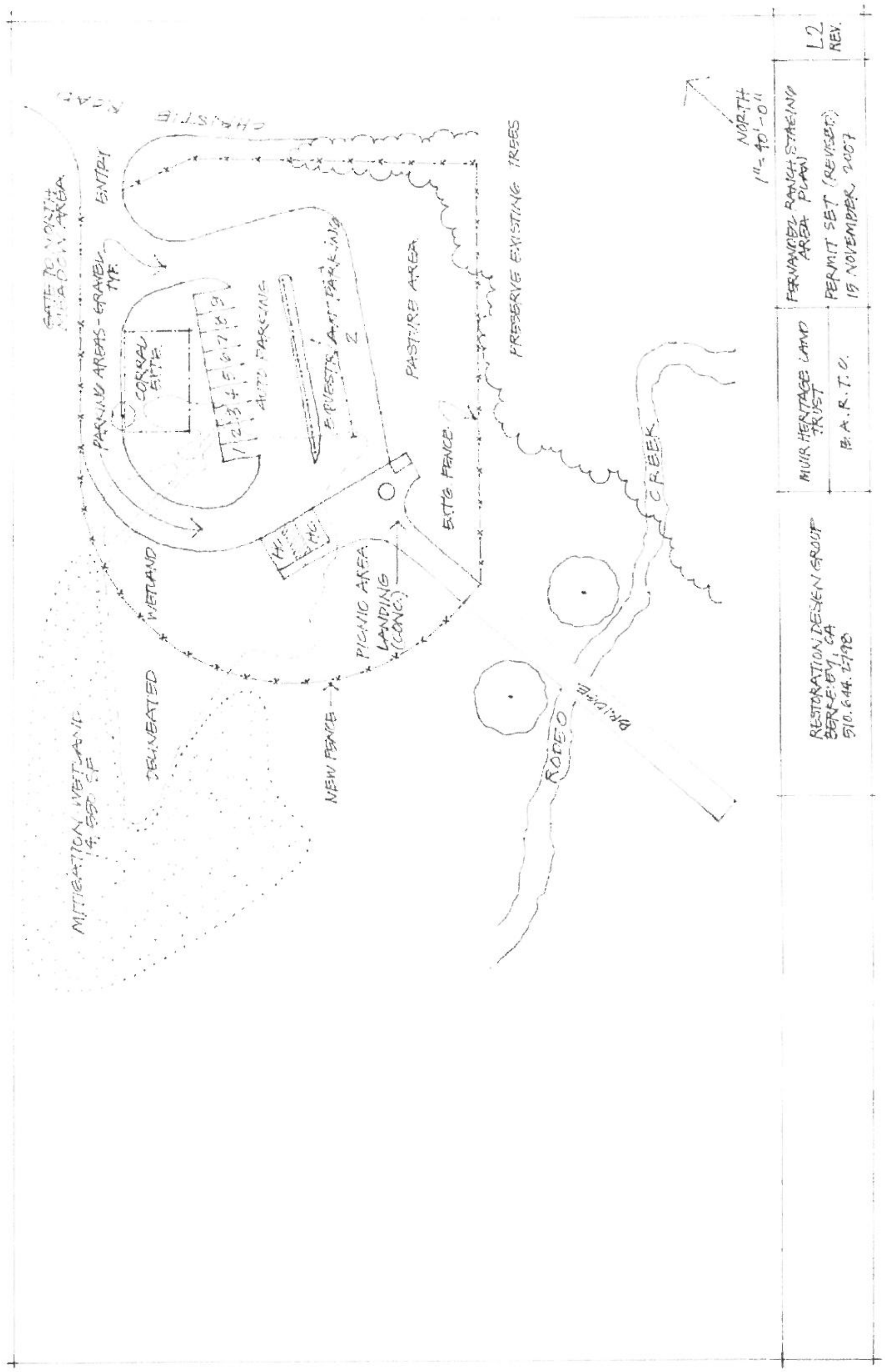
ENTRY
PARKING AREAS - GRAVEL TYP.
CORRAL SITE
AUTO PARKING
PASTURE AREA
PRESERVE EXISTING TREES
EXTG FENCE
PICNIC AREA
LANDING (CONC.)
WETLAND
DELINEATED
NEW FENCE
MITIGATION WETLAND
CREEK
RODEO
NORTH
1" = 40'-0"
FERNANDEZ RANCH STAGING AREA PLAN
PERMIT SET (REVISED)
15 NOVEMBER 2007
MUIR HERITAGE LAND TRUST
B.A.R.T.O.
RESTORATION DESIGN GROUP
BERKELEY, CA
510.644.2798
L2
REV.

FIGURE 7

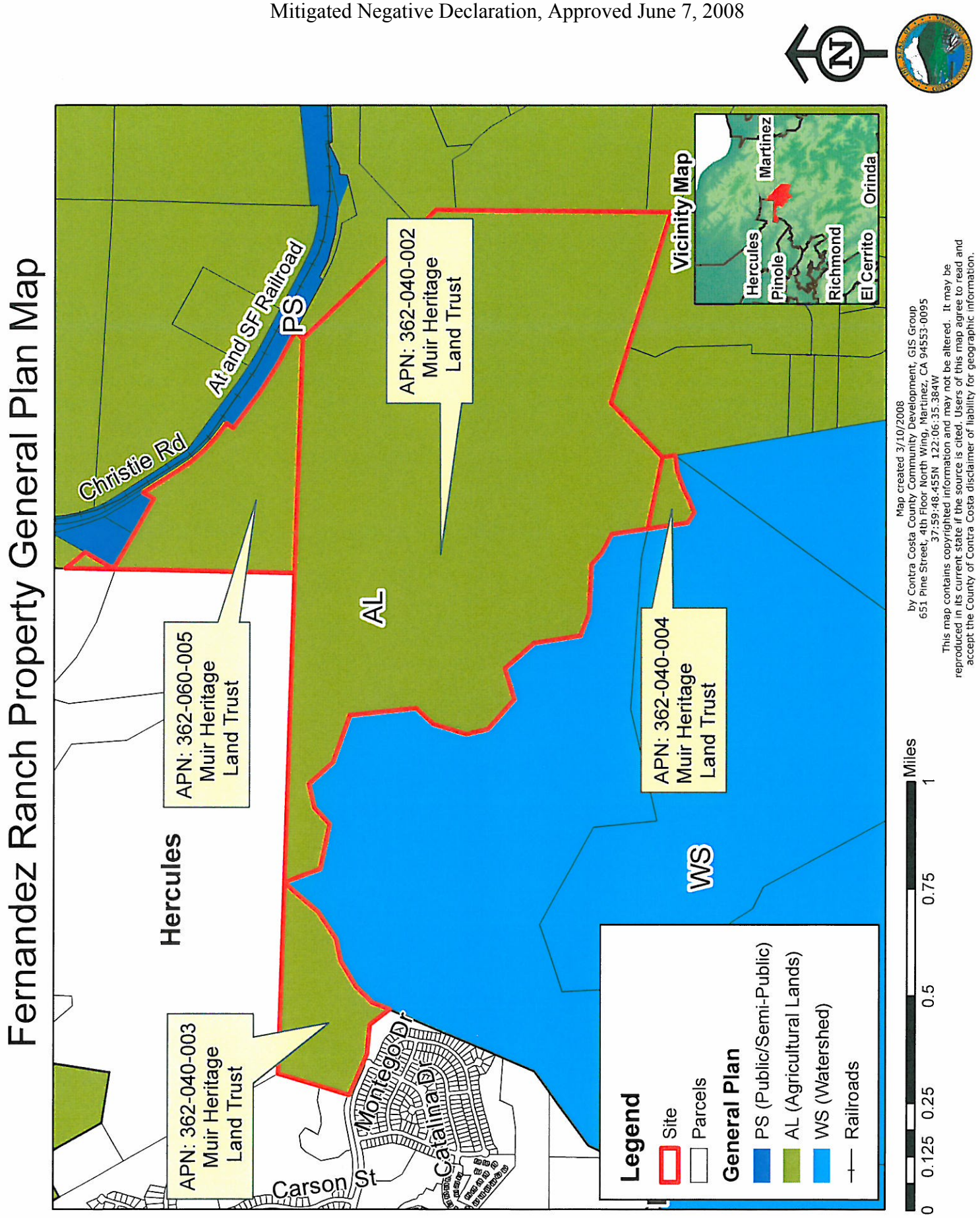
Fernandez Ranch Property General Plan Map
Christie Rd
At and SF Railroad
PS
AL
WS
Hercules
APN: 362-060-005
Muir Heritage
Land Trust
APN: 362-040-002
Muir Heritage
Land Trust
APN: 362-040-003
Muir Heritage
Land Trust
APN: 362-040-004
Muir Heritage
Land Trust
Montego Dr
Catalina Dr
Carson St
Vicinity Map
Martinez
Orinda
Hercules
Pinole
Richmond
El Cerrito
Legend
Site
Parcels
General Plan
PS (Public/Semi-Public)
AL (Agricultural Lands)
WS (Watershed)
Railroads
0 0.125 0.25 0.5 0.75 1
Miles
Map created 3/10/2008
by Contra Costa County Community Development, GIS Group
651 Pine Street, 4th Floor North Wing, Martinez, CA 94553-0095
37:59:48.455N 122:06:35.384W
This map contains copyrighted information and may not be altered. It may be reproduced in its current state if the source is cited. Users of this map agree to read and accept the County of Contra Costa disclaimer of liability for geographic information.

FIGURE 8

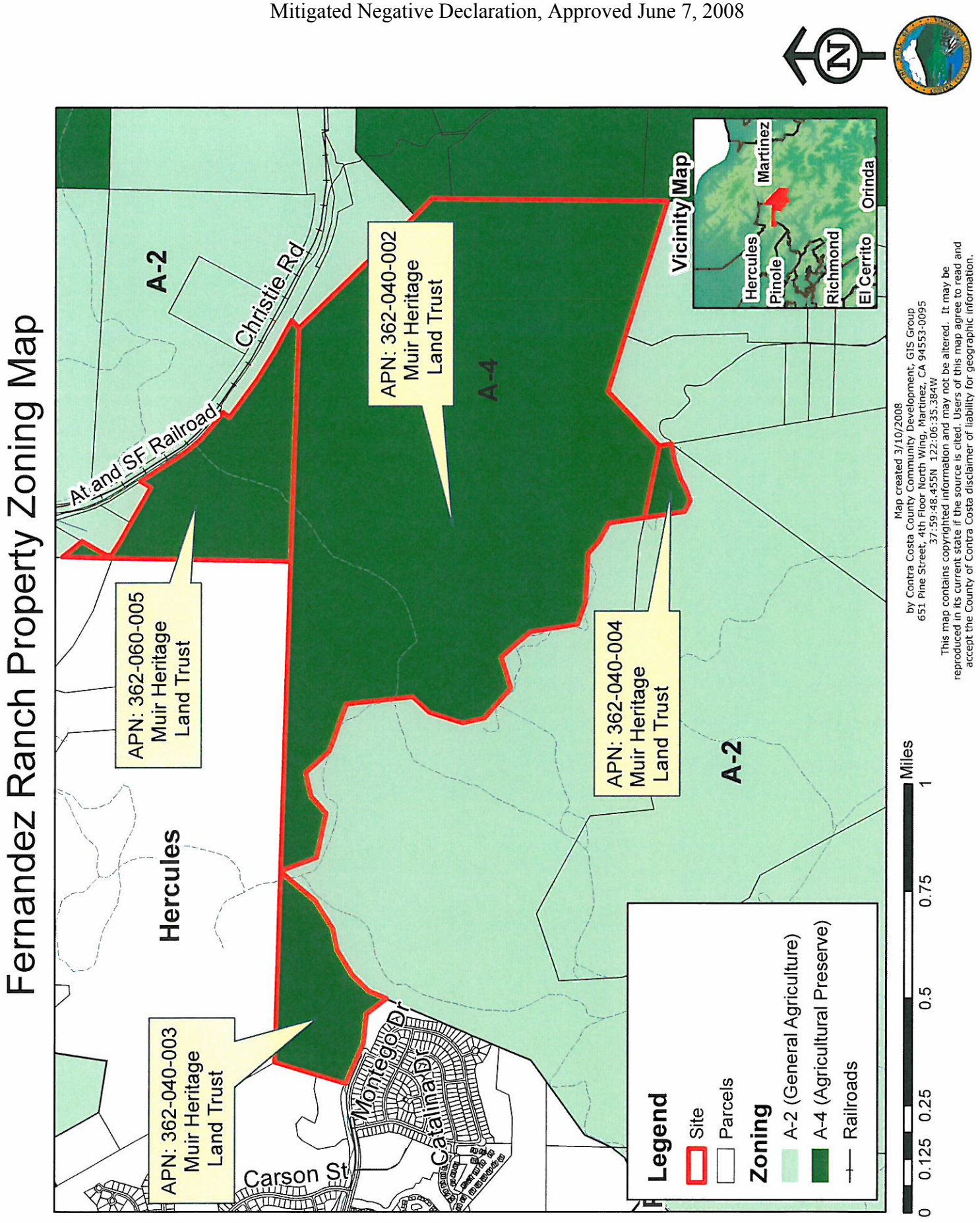
Fernandez Ranch Property Zoning Map
A-2
Christie Rd
At and SF Railroad
APN: 362-040-002
Muir Heritage
Land Trust
A-4
Vicinity Map
Martinez
Orinda
Hercules
Pinole
Richmond
El Cerrito
APN: 362-060-005
Muir Heritage
Land Trust
APN: 362-040-004
Muir Heritage
Land Trust
A-2
Hercules
APN: 362-040-003
Muir Heritage
Land Trust
Montego Dr
Catalina Dr
Carson St
Legend
Site
Parcels
Zoning
A-2 (General Agriculture)
A-4 (Agricultural Preserve)
Railroads
0 0.125 0.25 0.5 0.75 1
Miles
Map created 3/10/2008
by Contra Costa County Community Development, GIS Group
651 Pine Street, 4th Floor North Wing, Martinez, CA 94553-0095
37:59:48.455N 122:06:35.384W
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FIGURE 9